

California High-Speed Train Project



ARRA Design-Build Program Plan (DBPP)

DRAFT

Parsons Brinckerhoff

For the

California High-Speed Rail Authority

Document Control # POLI-PRCT-001
July 6, 2011 – v1

THIS PAGE INTENTIONALLY LEFT BLANK

DRAFT

Contents

1. SUITABILITY OF THE PROJECT AS A DESIGN-BUILD CANDIDATE	7
1.1. PROGRAM MANAGEMENT	7
2. PERFORMANCE METRICS TO BE USED TO ASSESS SUCCESSFUL PROJECT COMPLETION	8
2.1. MEASURING SUCCESS	8
2.2. BEFORE AND AFTER STUDIES	10
3. COMPOSITION OF THE DESIGN – BUILD PROJECT TEAM	10
3.1. PROJECT MANAGEMENT STRUCTURE	11
3.2. AUTHORITY PROJECT MANAGEMENT ORGANIZATION	12
3.3. PROJECT MANAGEMENT TEAM	13
3.4. ANTICIPATED DESIGN-BUILDERS’ ORGANIZATION	17
4. PROJECT SCOPE	20
5. DECISION FACTORS TO BE USED FOR SELECTION FROM AMONG DESIGN-BUILD PROPOSALS	21
5.1. REQUEST FOR QUALIFICATIONS	21
5.2. RFP RESPONSE	24
6. METHODS FOR CONTRACT ADMINISTRATION	27
6.1 ANTICIPATED ICS CONTRACTING APPROACH	27
6.1.1 APPROACH TO THE LARGE ICS DESIGN-BUILD CONTRACT	27
6.1.2 APPROACH TO MID-SIZE DESIGN –BUILD CONTRACTS	27
6.1.3 APPROACH TO TRACKWORK DESIGN-BUILD PACKAGE	28
6.1.4 APPROACH TO SMALL DESIGN-BID-BUILD PACKAGES	28
6.2 DESIGN-BUILD PROCUREMENT PROCESS	28
6.2.1 RFQ RELEASE AND SHORTLISTING	28
6.2.2 RFQ RELEASE, PROPOSALS SUBMITTAL AND REVIEW, AND CONTRACTOR SELECTION	28
6.3 DESIGN-BUILD PROGRAM PLAN OVERSIGHT AND CONTROL	29
6.3.1 FRA PROJECT MANAGEMENT OVERSIGHT	29
6.3.2 DBPP CONTROL AND REVISIONS	29
6.3.3 PROJECT SCHEDULE	29
6.3.4 PROJECT BUDGET	30
6.4 EXAMPLE ICS PROJECT DESIGN-BUILD CONTRACTING APPROACH	30
6.4.1 PROGRAM AND PROJECT MANAGEMENT RESPONSIBILITIES	30
6.4.1.1. PROJECT OFFICE	30
6.4.1.2. MANAGEMENT STRUCTURE	31
6.4.2 MANAGEMENT AND PROJECT CONTROLS	31
6.4.2.1. TECHNICAL AND SCOPE CONTROL	31
6.4.2.2. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)	31
6.4.2.3. SCHEDULE CONTROL	32
6.4.2.4. PROGRESS PAYMENTS	32
6.4.2.5. COST CONTROL AND JOB ACCOUNTING SYSTEMS	33
6.4.2.6. TRACKING FEDERAL PROJECT COST	33
6.4.2.7. DOCUMENT CONTROL	33
6.4.2.8. COST ESTIMATING	34
6.4.2.9. PROGRESS REPORTING AND REPORT MANAGEMENT	34
6.4.3 LABOR RELATION AND POLICY	35
6.4.3.1 RESPONSIBILITIES	35
6.4.3.2 WAGE RATES AND JOBS CLASSIFICATIONS	35

California High Speed Train Project
ARRA Design-Build Program Plan (DBPP) DRAFT

6.4.3.3	WAGE AND HOUR REQUIREMENTS	35
6.4.3.4	FEDERAL, STATE AND LOCAL REGULATIONS.....	35
6.4.3.5	PROJECT LABOR AGREEMENT.....	36
6.4.4	RISK ASSESSMENT	36
6.4.4.1	AUTHORITY RISK EVALUATION.....	36
6.4.4.2	AUTHORITY RISK MANAGEMENT PLAN	36
6.4.5	ENVIRONMENTAL ANALYSIS AND MITIGATION	37
6.4.5.1	EIS AND MITIGATION	37
6.4.5.2	ENVIRONMENTAL ASSESSMENT AND AMENDED ROD	37
6.4.5.3	TRANSPORTATION MANAGEMENT PLAN	37
6.4.6	PROCUREMENT/CONTRACT ADMINISTRATION	37
6.4.6.1	PRE-AWARD PROCEDURES	38
6.4.6.1.1	PRE-AWARD PROCEDURES.....	38
6.4.6.1.2	CONTRACT ADMINISTRATION.....	38
6.4.6.2	AUTHORITY PROCUREMENT PLAN	38
6.4.6.2.1	PROJECT MANAGEMENT.....	39
6.4.6.2.2	PROJECT MANAGEMENT OVERSIGHT	39
6.4.6.2.3	CONSULTANT SERVICES	39
6.4.6.2.4	DESIGN CONSTRUCTION CONTRACTS.....	39
6.4.6.2.5	DESIGN AND CONSTRUCTION MANAGEMENT OVERSIGHT	39
6.4.6.3	DESIGN BUILDER’S SUBCONTRACTS AND PROCUREMENT PLAN	39
6.4.6.3.1	ALLOWANCE ITEMS.....	40
6.4.6.3.2	PERMANENT MATERIALS	40
6.4.6.3.3	CONSTRUCTION EQUIPMENT	41
6.4.6.4	QUALITY ASSURANCE REQUIREMENTS	41
6.4.6.5	DESIGN BUILDER’S SUBCONTRACTS AND PROCUREMENT PLAN	41
6.4.7	DESIGN PROGRAM	41
6.4.7.1	MANAGEMENT OF DESIGN	41
6.4.7.2	DESIGN CRITERIA, STANDARDS, AND SPECIFICATIONS	41
6.4.7.3	CONFIGURATION MANAGEMENT	42
6.4.8	CONSTRUCTION MANAGEMENT	42
6.4.8.1	ROLES AND RESPONSIBILITIES – DESIGN-BUILD CONSTRUCTION.....	42
6.4.8.2	CONSTRUCTION CONTRACT ADMINISTRATION	43
6.4.8.3	CONSTRUCTION SAFETY	43
6.4.8.4	CHANGE ORDER AND CLAIMS.....	43
6.4.8.4.1	CHANGE ORDER CONTROL	43
6.4.8.4.2	PAYMENTS AND CLAIMS CLOSE-OUT	44
6.4.8.5	LOGISTICS PLAN	44
6.4.8.6	VALUE ENGINEERING.....	44
6.4.8.7	MATERIALS TESTING	45
6.4.8.8	UTILITY RELOCATION	45
6.4.8.8.1	INTERFACES AND RELATIONSHIPS.....	45
6.4.8.8.2	ROLES AND ACTIVITIES	46
6.4.8.8.3	UTILITY BETTERMENTS	46
6.4.8.8.4	DESIGN-BUILD CONTRACT	46
6.4.9	CONFLICT RESOLUTION	47
6.4.9.1	COOPERATION COMMUNICATIONS.....	47
6.4.9.1.1	NEGOTIATIONS	47
6.4.9.1.2	ELEVATED NEGOTIATIONS.....	47
6.4.9.1.3	INDEPENDENT EXPERT	47
6.4.9.1.4	SUBMISSION OF CERTIFIED CLAIM.....	47
6.4.9.2	CERTIFIED CLAIM AND PROCEDURES.....	48
6.4.9.3	MEDIATION	48

California High Speed Train Project
ARRA Design-Build Program Plan (DBPP) DRAFT

6.4.9.4	LEGAL PROCEEDINGS	48
6.4.9.5	FALSE CERTIFICATIONS	49
6.4.9.6	CONTINUANCE OF WORK DURING DISPUTE	49
6.4.10	SAFETY CERTIFICATION	49
6.4.10.1	THE AUTHORITY SAFETY AND SECURITY MANAGEMENT PLAN.....	49
6.4.10.2	SAFETY/SECURITY CERTIFICATION MANAGEMENT PLAN (SCMP)	50
6.4.10.3	OWNER CONTROLLED INSURANCE PLAN.....	50
6.4.11	SUBSTANTIAL COMPLETION	50
6.4.12	FINAL ACCEPTANCE	51
6.5	THIRD PARTY AGREEMENTS	51
6.5.1	INTERGOVERNMENTAL AGREEMENT (INCLUDING FEDERAL, STATE AND LOCAL AGENCIES, TRIBAL ENTITIES, AND SPECIAL DISTRICTS).....	51
6.5.2	UTILITY AGREEMENTS	51
6.5.3	RAILROAD AGREEMENTS	51
6.6	ROW ACQUISITION.....	52
6.6.1	OVERVIEW.....	52
6.6.2	RIGHT-OF-WAY ACQUISITION MANAGEMENT	52
6.6.3	RIGHT-OF-WAY ACQUISITION MANAGEMENT PLAN	52
6.6.4	PROPERTY ACQUISITION AND RELOCATION ASSISTANCE.....	53
6.6.5	PROPERTY MANAGEMENT PLAN	53
6.6.6	SCHEDULING AND COST ESTIMATES	53
6.6.7	PERMITS.....	54

THIS PAGE INTENTIONALLY LEFT BLANK

DRAFT

1. Suitability of the Project as a design-build candidate

1.1. Program Management

Current Status – The ARRA-funded Initial Construction Section (ICS) is in the final stage of environmental clearance, and level of design at time of Request for Proposals (RFP) release will not exceed 30%. This level of design will provide a buildable design concept to the design-builder. The design builder will be required to take responsibility for the entire design. This process fosters the integration of design with the design builder’s construction means, methods, sequences and techniques.

Legal Authority – The power to enter into contracts necessary to carry out the functions of the California High Speed Rail Authority (the “Authority”) is expressly provided by the statutes that created the Authority and define its powers and authority. Upon approval of a financial plan providing necessary funding for the construction of the Authority’s Phase 1 Program as described in California Public Utilities Code §185034(8), this power specifically includes the power to:

Enter into contracts with private or public entities for the design, construction, and operation of high-speed trains. The contracts may be separated into individual tasks or segments or may include all tasks and segments, including a design-build or design-build-operate contract. (California Public Utilities Code §185036(a))

Nothing in the statute authorizing the creation of the Authority limits the grant of the contract power. Nor does this statute specify the procedures to use in contracting. However, as a State agency, the Authority’s procurement and contracting practices are subject to review by the California Department of General Services (DGS), pursuant to Sections 10295 et al of the California Public Contracts Code. The one exception to this DGS oversight requirement is the category of “architecture/engineering” contracts subject to Sections 4525 et al of the California Government Code (California’s “Little Brooks Act”), which instead are subject to the Authority’s own regulations, codified in Sections 1000 et al of Title 21 of the California Code of Regulations (CCR). The Authority also intends to enact its own regulations addressing additional categories and methods of contracting, including design-build, through the same formal rulemaking process as for contracts subject to the Little Brooks Act. Until such time, however, the Authority’s design-build procurement and contracting practices are subject to DGS review.

Size – The ICS is approximately 125 miles long, and has an estimated cost of \$5.9 billion. This project will accommodate one large-size and three mid-size design-build contracts.

Schedule and Funding – The ICS must be complete by September 30, 2017, as a condition of ARRA funding. The schedule benefits afforded by design-build will be critical to timely delivery of the ICS.

Complexity and Innovation – Challenges related to the magnitude of this project will benefit from the innovation in design and construction means, methods, sequences, techniques, and procedures that can be offered by design-build contractors.

Risk and Incentives – The potential consequences of failure to achieve the mandated completion deadline are great. It is the Authority’s intention to provide, subject to any legal restrictions, the

design-builders with incentives to meet this deadline and corresponding steep penalties if this deadline is not met.

Project Scope – The Authority will prepare well-defined scopes for all design-build contracts, and configure the contracts to minimize risk of unforeseen conditions and possibility of significant changes during both design and construction stages of the work.

Authority oversight staff – The Authority’s staff responsible for administering the design-build projects, complemented by PMT staff, are well-versed in the design-build method of project delivery, including procurement and contract administration processes. It is anticipated that the Authority will contract with local construction management firms to administer the individual design build contracts.

Qualified Design-Build Contractors – The overwhelming response to the RFEI released by the Authority demonstrates a strong presence of a significant number of competent design and construction firms interested and willing to compete for work under the design-build contracting approach. Consequently, it is expected that the bids/proposals received will be cost-competitive.

2. Performance metrics to be used to assess successful project completion

2.1. Measuring Success

The Authority’s statutory mandate is to plan, design, build, operate and maintain a High-Speed Train (HST) system that is coordinated with California’s existing transportation network, particularly intercity rail and bus lines, commuter rail lines, urban rail transit lines, highways, and airports. The Authority will conduct “Before and After Studies” to measure the performance of the Authority in the delivery of each ICS project implemented through design-build contracts. In accordance with this mandate, the Authority’s primary requirements for the ICS include:

Quality

Quality of the completed facility, which can be measured in both quantitative and qualitative terms, including:

- Conformance with standards and specifications
- Compliance with provisions of contract warranties
- Overall Authority satisfaction
- Stakeholder satisfaction
- Minimal number of claims or change orders
- Achievement of project scope and objectives, including project quality standards, traffic impacts, and environmental goals

Cost

- Total cost of project development relative to budget, including the following:
 - Project planning
 - Project administration
 - Design
 - Construction
 - Construction administration

- Quality assurance and quality control
- Amount of cost variance from bid
- Minimal cost of claims or change orders

Three measures of project cost change based on the phase of the project development process are:

- Pre-Contract Cost Change: the percent difference between contract and budget cost levels (i.e., $[\text{contract cost} - \text{budget cost}]/\text{budget cost}$), which measures what happens to project cost levels as the project moves from concept to contract.
- Contract Cost Change: the percent difference between final delivered cost and contract cost levels (i.e., $[\text{delivered cost} - \text{contract cost}]/\text{contract cost}$), which measures what happens to project cost levels during the design-build of the construction contract.
- Total Project Cost Change: the percent difference between final delivered cost and budget cost levels (i.e., $[\text{delivered cost} - \text{budget cost}]/\text{budget cost}$), which measures what happens to project cost levels from concept to completion.

Timeliness

- The ICS will be completed in all respects by September 30, 2017.
- Duration of project development, comprising the following two phases:
 - From concept to contract award
 - From contract award to completion
- Project opening relative to scheduled completion date
- Length of project extension
- Project advancement or velocity relative to schedule
- Early identification of potential delays and implementation of mitigation measures
- Early identification of the possible need to accelerate the construction

Other

- The ICS minimizes construction impacts on adjacent highway, rail and transit operations and adjacent land use activities (e.g. agricultural operations), including any planned improvements
- The ICS results in measureable job creation
- Reduction in administrative burden following contract award
- Success of implementing innovative techniques and products, such as new technology or construction techniques
- Implementation of extended warranty or other risk mitigation approaches
- Equity of the procurement process for prospective bidders including:
 - Individual firms or teams providing planning, architecture, design, construction, and inspection and testing and construction management services
 - Large, medium, small, and disadvantaged firms
 - Domestic or international firms or teams
 - Potential for Small Business set-asides
- Competition among prospective bidders in the rail design and construction industry including:
 - Individual firms or teams providing planning, architecture, design, construction, and inspection and testing and construction management services
 - Large, medium, small, and disadvantaged firms
 - Domestic or international firms or teams

- Successfully provide information to help minimize congestion to multiple entities

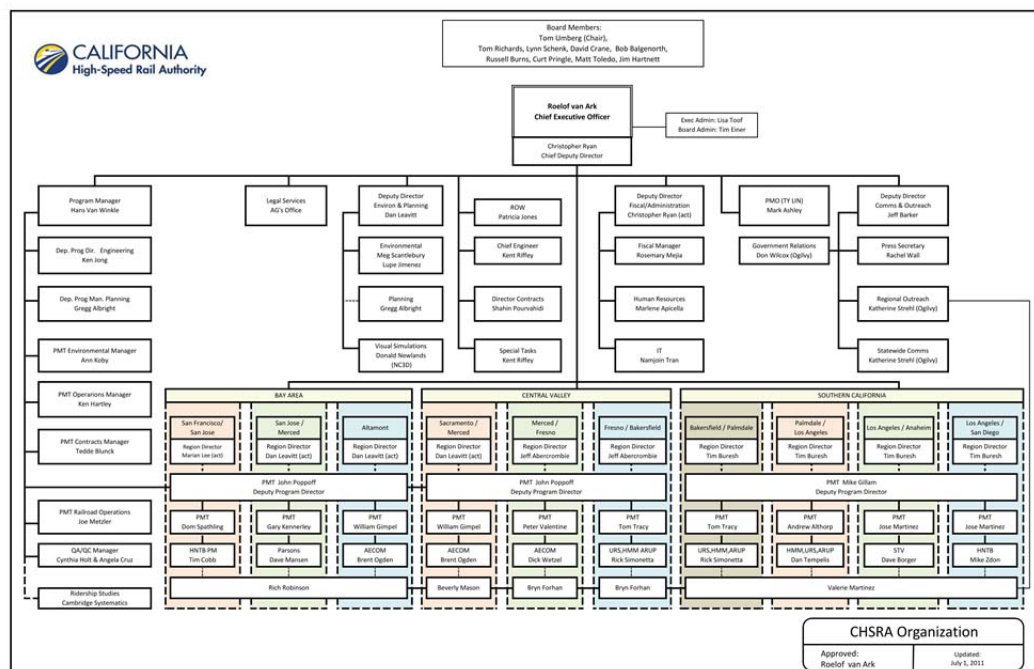
2.2. Before and After Studies

The Authority is developing a plan for the collection and analysis of information leading to the identification of the impacts of each ICS Project to be delivered through Design-Build Contracts and the accuracy of the forecasts prepared during Project planning and development. The analysis for each Project, called a Before and After Study, will have two distinct and important purposes: (1) to expand insights into the costs and impacts associated with construction of the ICS using the design-build delivery method; and (2) to improve the technical methods and procedures used in the planning and development of similar future efforts.

The Authority will electronically archive the data, forecasts, and source documents for use in the analyses. For key Project planning and development milestones, this documentation provides a history of the Project's evolution, summarizes key assumptions, and presents detailed findings for each of the areas that will be considered in each Before and After Study.

3. Composition of the Design – Build Project Team

CAHSRA ORGANIZATION CHART



This section discusses the overall approach for managing the design and implementation of the ICS. It also outlines how the participating agencies and entities are organized and staffed. As implementation of the ICS proceeds from Preliminary Engineering to Final Design, and through construction and start-up, the organization will evolve to maximize the efficient use of personnel and adjust to the changing workload. The Authority will periodically update the DBPP to include each phase to reflect changes in the organization and management policies and procedures. At the Program level, the engineering efforts are focused on four key areas of activity.

3.1. Project Management Structure

The proposed management structure draws on the strengths and capabilities of each organization to implement the Project in a timely, cost-effective manner. This section summarizes the roles of the principal participants.

[CAHSRA DESIGN-BUILD ORG CHART] identifies the Project participants and their roles on the Project. These roles are described in more detail in the following paragraphs. Information regarding the respective organizational structure of each participant is provided below.

Project Sponsor and Grantee – The Authority: As the Project sponsor and grantee, the Authority will be the direct point of contact for FRA and the agency that is ultimately responsible for the success of the ICS. In Final Design, the Authority will be the federal grant applicant and recipient and have direct responsibility for the day-to-day management of the Design-Build Contract, including the scope of work, the baseline schedule, the design and construction budget, and all other associated Project Management tasks. To assist in fulfilling its role, the Authority has entered into intergovernmental agreements with the U.S. Army Corps of Engineers (COE), the U.S. Environmental Protection Agency (EPA), and California Department of Transportation (Caltrans). The Authority anticipates having agreements executed with the U.S. Fish and Wildlife Service (FWS), the U.S. National Marine Fisheries Service (NMFS), the State Historic Preservation Officer (SHPO), California Department of Fish and Game (CDFG), California Department of Parks and Recreation (CDPR), and State Water Resources Control Board (SWRCB) by July 1, 2011. The Authority has also retained a Project Management Team (PMT) of consultants to supplement staff capabilities in a number of technical areas and to provide selected management support services to the Authority, including but not limited to real estate acquisition support, public involvement, and technical coordination for utility agreements and relocations and permitting.

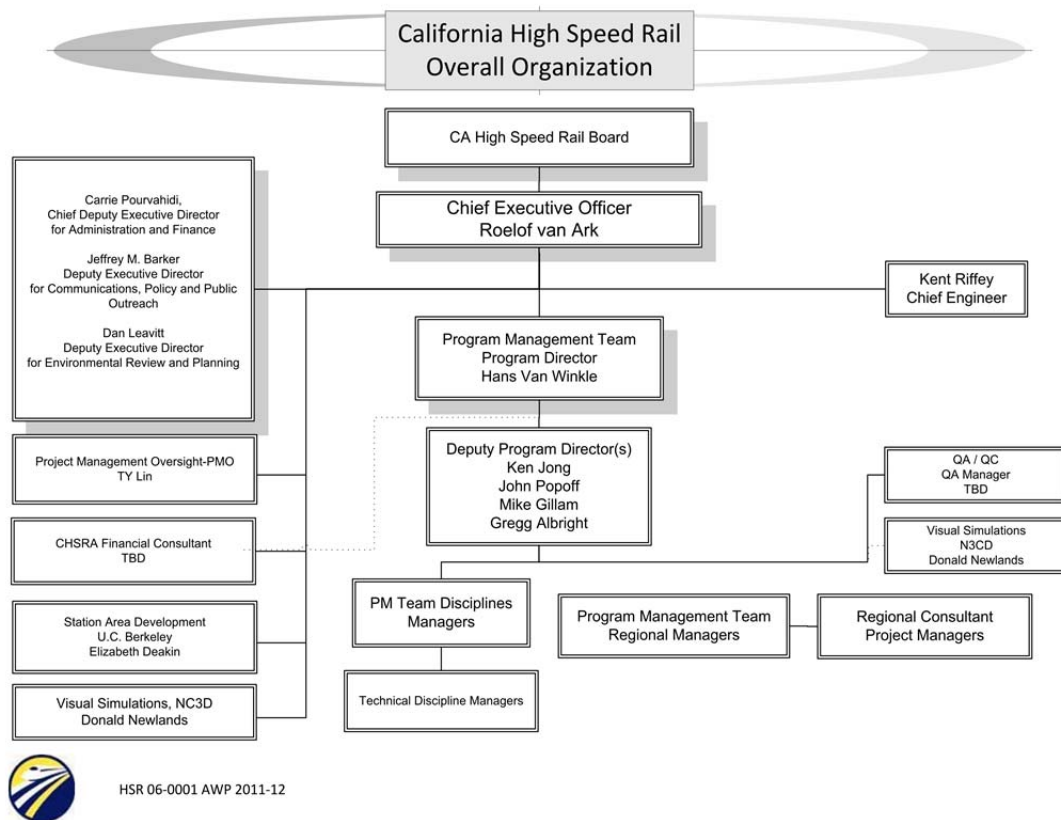
Design-Build Contractors – To Be Determined: The selected design-build contractors will perform the scope of services required for Final Design and Construction for their respective contracts.

The Project organization recognizes the responsibility of the Authority as the FRA designated recipient for federal transportation funds. The Authority Executive Director and the Authority Board are ultimately accountable to the FRA for the expenditure of federal funds for the Project. As a recipient of federal transportation grants, the Authority will be subject to the oversight requirements of the FRA, particularly as they relate to budgeting, local share of funding or resources, contracting and procurement procedures, environmental protection, quality assurance and quality control, labor relations, Equal Employment Opportunity (EEO), Americans with Disabilities Act (ADA) requirements, ethics, documentation and record retention, accounting, and auditing.

3.2. Authority Project Management Organization

During Final Design and Construction of the Project, the Authority will provide expertise in numerous fields including engineering, planning, construction, finance, legal issues, and communications, along with staff and consultant support, to confirm that all relevant issues are identified and addressed. The Authority will also provide property as well as a share of the non-federal funding for the development of the Project.

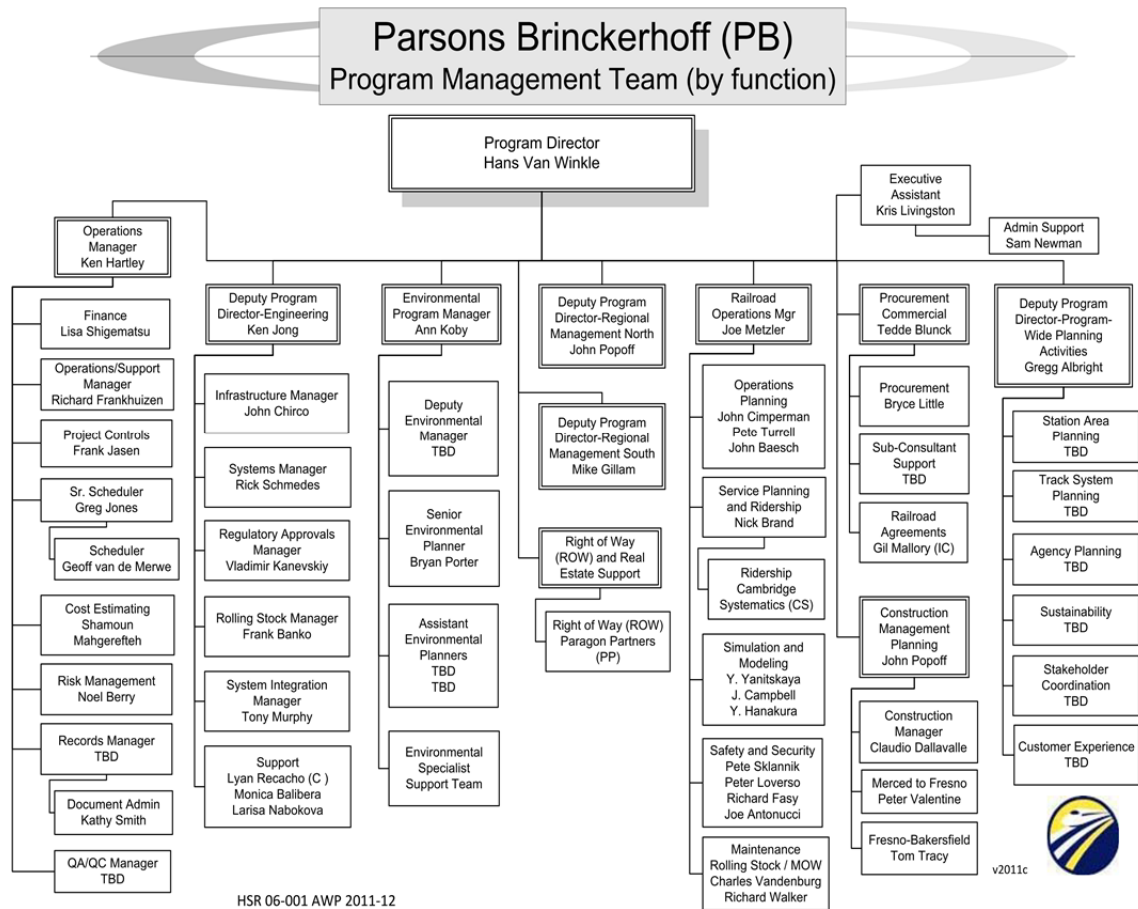
The Authority Project Management Organization chart shown below depicts the key roles and relationships of the Authority staff and their consultants working on the Project during Final Design and Construction. Through a combination of direct and indirect reporting arrangements, the Authority will take advantage of the depth of their existing organization and consultants under contract to provide the skills necessary to successfully manage the Project.



The responsibilities of the Authority project management organization are described below.

All Project staff report up to the Authority Executive Director, who is the single point of management responsibility for all Authority activities, including those for the ICS. An organization

chart identifying the Authority's key project management staff is shown below.



A separate Authority [Project Director] will be responsible for the Design-Build Program on the ICS.

3.3 Project Management Team

The Project Management Team (PMT) augments and provides support to the Authority's organization. The PMT, which the Authority has identified as the multi-firm team lead by Parsons Brinckerhoff, will provide program management, design support, and construction oversight services for the implementation of the Project, requiring considerable on-site representation.

The PMT will report to the Authority's Chief Executive Officer and will provide assistance to the Authority in a consultant role. The PMT possesses a full range of technical and managerial professional disciplines and capabilities associated with major facilities programs and have demonstrated its ability to successfully provide project management services on large transit projects. The PMT Organization chart previously shown in section 3.2 Authority Project Management Organization depicts the key roles and relationships of the PMT staff.

Parsons Brinckerhoff has established an on-site project specific recruiting department to fill or replace open vacancies with qualified individuals. The recruiting department will use internal and

external resources as well as agency services when needed to fill these positions. Ongoing training is provided for all staff. This is accomplished by an on-line university training program provided through Parsons Brinckerhoff. Employees are encouraged to participate in this on-line university as well as enroll in external training and certification classes as required and necessary for their position. The PMT will supplement and complement the Authority staff by providing support services for the implementation of the Project in the following types of activities:

- Project Management and Administration
- Construction Management and Administration

Reporting to the Authority's Chief Executive Office, the PMT will provide the Project management staff to assist the Authority in overseeing all aspects of the Project's design and construction. The PMT will assist the Authority in the interface with and oversight of the activities of the design-builders and third parties and will include strict enforcement of the applicable contract and intergovernmental agreements. The PMT Program Manager and staff will develop monitoring and reporting policies and procedures for the Project that are fully compliant with those required by the Authority and the FRA. All PMT activities will comply with the approved Authority's Project procedures.

The PMT Project management staff will also assist the Authority in the full implementation of the quality assurance program developed by the Authority for the Project. The Project's quality assurance plans and procedures will be implemented within each of the functional areas of the PMT organization.

The PMT will supply office support staff functions including accounting, human resources, contract management, and Project coordination for the Authority. The PMT will also assist the Authority in procuring and managing all contracts necessary to deliver the ICS.

To implement the PMT tasks, the PMT Team is organized along functional lines, with senior managers reporting directly to the PMT Program Director, as described in greater detail below. This organization allows for a direct one-to-one relationship with the Authority's Project management staff in the same functional roles and paralleling of design builders' staffing plan for the execution of the Project in accordance with the various and concurrent construction operations areas.

- Project Controls and Information Technology Support

The California High-Speed Rail Program Management Team (PMT) is implementing a program controls system for use by the California High-Speed Rail Authority as it moves from the conceptual planning phase through the environmental approvals to detailed design, procurement and construction to testing & commissioning into revenue service.

Program control is a group of major support functions provided to supervisors and management to assist in planning and executing specific programs and projects, rather than a control activity, per se. The supervisory and management staff actually controls the program by making the requisite decisions and taking either preemptive or corrective actions as appropriate.

The Program Management Team will use PMIS (Program Management Information System), an integrated scope, schedule, budget, risk, quality and content management database to record,

process, analyze and report project performance. This system is to be an integrated on-line system that uses out-of-the box (when available), state-of-the-art project management tools, organized around a centralized Enterprise Project Structure (EPS) and Work Breakdown Structure (WBS).

The EPS/WBS provides a consistent framework for organizing program management data in a consistent manner across the various projects in the program to facilitate planning and execution of the work. It reflects the breakdown of the work and associated deliverables as identified in the Annual Work Program (AWP), authorizations to the contractual entities, as well as identifies future work not yet authorized. The tools used as part of the system provide for a single point of data entry to increase efficiency and reduce errors and most importantly improve the reporting capabilities to provide better management tools for analysis and decision making.

The system leverages industry besting practices through the use of integrated out-of-the box tools including the Primavera project management suite of tools. It integrates the following program control functions to provide timely, accurate and meaningful management information to all program participants.

- Scope Management
- Cost Management
- Schedule Management
- Enterprise Content Management
- Risk Management
- Quality Management

The Program Controls System is being addressed and fully developed in a multi-phase process. Since there are many components required to build the entire set of required tools, the approach is to identify the management tools needed and work to that goal in a systematic fashion while sustaining the existing reporting and management functions.

- Environment Oversight

The PMT planning oversight includes overseeing all transportation and land use planning activities required for the successful development and implementation of Project. This includes supporting the regional consultants by providing them with policy guidance and ensuring adequate staff and stakeholder collaboration in station area development, promoting public private partnership opportunities, ensuring adequate transit connectivity and reduced station parking, promoting station concession planning, overseeing the station area planning agreements and Strategic Growth Council's planning grants, coordinating with the Vision California and California State Rail Plan initiatives, working with agricultural and permitting agencies, and overseeing sustainability planning. The PMT environmental tasks include overseeing all environmental processes, overseeing the eight Regional Consultants' environmental efforts and products, adhering to all state and federal environmental requirements, insuring accuracy and compliance with applicable environmental laws and standards, providing guidance, reviewing all environmental submissions for quality and adherence to established standards; and interfacing with the deputy program managers, the planning manager, the regional managers, the engineering manager, the construction planning manager, operations manager, infrastructure manager, systems integration manager, regulatory

manager, the systems safety and security leads, the ridership lead, the maintenance lead and other technical staff as required.

Planning Oversight

The PMT will coordinate with the design builder to ensure key land use and transportation planning commitments are addressed and necessary coordination is maintained with local, regional and federal agencies, community and business representatives, transit operators and other related stakeholders. Commencing with the preparation of the Design documents and extending throughout the Construction phase of the Project, the PMT will, on behalf of the Authority, monitor all aspects of the design builders' program delivery to ensure consistency with land use and transportation planning commitments. Some of the key areas of planning the design builder will need to consider include; high-speed train station area planning, multi-modal transit connectivity, visual and aesthetic design, sustainable construction practices and materials, and protection of adjacent community, business and agricultural activities.

- Design and Engineering Oversight

With respect to design and engineering, the PMT provides an oversight function for the contractors designs to confirm general compliance with the CHSTP design criterion and standards, and to confirm that the designed elements support the overall performance and safety requirements for the CHST system. Specifically, the PMT will review and assess contractor requests including:

1. RFIs regarding 30% Design Drawings included in the Procurement Package
2. RFIs regarding technical design criteria, standards, and other issued design guidance
3. Design Variance Requests
4. Alternative Proposals
5. Ready for Construction drawings for general consistency with CHST System performance requirements

In addition, the PMT will implement a self certification process for the Contractor to confirm and verify that their design has met the detailed design requirements. The self certification approach is built on a systems engineering methodology for design and is based on Industry standard verification and validation (V+V) processes. The self certification process is supported by a active Audit Program to confirm adherence to the V+V procedures.

- Construction Oversight

Commencing with the preparation of the Final Design documents and extending throughout the Construction phase of the Project, the PMT will, on behalf of the Authority, monitor all aspects of the design builders' Construction programs.

PMT participation in construction activities will include obtaining those permits that are the Authority's responsibility and providing assistance in obtaining those permits that are design builders' responsibility and the review and acceptance on behalf of the Authority of the design builders' Construction work plans and procedures to include quality assurance and control plans, maintenance of traffic plans, construction survey plans, construction safety and security plans, demolition plans and, as applicable, and the design builders' site specific work plans. The PMT will coordinate with the design builders and the Project QA/QC and Safety Manager to identify construction hold points and confirm that the appropriate inspections and approvals are completed.

The PMT will also monitor the design builders' full compliance with the applicable codes, all environmental requirements and any other conditions of the permitting agency.

In addition to the tasks summarized above, for portions of the work that are to be executed on a time and materials basis, e.g., utility relocations, the PMT will review and approve on behalf of the Authority all documentation of costs to include material invoices, labor hours/costs, equipment costs, etc. The PMT will monitor the utility relocation work to control the budget, scope and schedule to verify that utility work is performed to the minimum necessary and in support of the need of construction work.

On behalf of the Authority, the PMT team will review and participate in the approval of construction submittals and RFIs, monitor design builders' timely completion of the Project's record documentation and be responsible for conducting joint inspections with reviewing agencies for the initial preparation of punch lists and in verifying the completion of all punch list work.

- Business Diversity Monitoring

The PMT will support and monitor design builders' compliance with the Authority's Equal Employment Opportunity (EEO) and the Disadvantaged Business Enterprises (DBE)/Small Business (SBE) programs against the requirements of the design-build contracts.

- Community Relations

The PMT will assist the Authority with the development and implementation of a community outreach program for the Project. Components of the community relations task include the maintenance of a Project internet site, participation in public meetings and other forums to keep the public informed of Project events and progress and coordination of the art-in-transit element of the Project.

- Specialized Expertise

Specialty consultant support will be available to support the Authority as needed in the following areas:

- Expert review of specific structural, geotechnical, constructability, agricultural operational requirements.
- Technical issues related to design criteria, specifications and standards in several disciplines.
- Review of safety and security issues.
- Quality Assurance issues relative to Design-Build construction.

As the project staff is enhanced, the assignment of individual responsibilities is being made to staff as appropriate. This includes Authority responsible managers as well as PMT staff.

3.4 Anticipated Design-Builders' Organization

We anticipate that the design-builders' organizations will be arranged in a manner consistent with a "packaging" approach with separate Project engineers being responsible for specific areas of scope for: Line & Track; Stations and Facilities; as well as Maintenance and Support Facilities, with

performance of Final Design in a similar manner. The specific scope areas are shown on the organization charts. In addition to the specific scope areas, engineering and architectural disciplines provide matrix support for their areas of expertise. An organization CHART showing the design-builders anticipated first line reporting structure is shown below.

CHSR DESIGN-BUILDER ORGANIZATION (First Line Reporting)



Descriptions of the anticipated responsibilities of key members of the design-builders' Project management organization are as follows.

Project Executive Director:

The Project Executive Director develops and manages design builders' obligations for the Design-Build Project and is the primary point of contact for the Authority. The Project Executive Director has overall program responsibility for the design-builder. Reporting to the Executive Director are the Project Director, the Deputy Project Director Services, and the Project Manager Design-Build, whose responsibilities are described below. The design-builder Quality Manager, Environmental, Safety and Health (ES&H) Manager (responsible for environmental compliance and for Project safety issues), the Public Affairs Manager, and the Prime Contracts Manager, also report to the Project Executive Director.

Project Director:

The Project Director will conduct and coordinate, through assigned managers the utility relocation work, property identification, negotiation and contractor acquired right-of-way.

Project Deputy Director Services:

The Project Deputy Director Services is responsible for providing technical services for design builders' Design-Build, Utility Relocations, and ongoing Development work. Reporting to the Project Deputy Director Services is the Human Resources Manager, the Accounting/Business Manager, the Project Controls Manager, the Acquisitions Manager, and the Project Administrative Manager.

Project Manager Design-Build:

The Project Manager Design-Build is responsible for managing design builders' design and construction of the Project. Reporting to this Manager are the Deputy Project Manager Design and the Deputy Project Manager Construction whose responsibilities are described below.

Project Quality Manager:

The Project Quality Manager develops and maintains the design-builder QA/QC Plan and procedures, instructions, practices, and related documents that define design builders' requirements to achieve required levels of quality on the Project. The Project Quality Manager is also responsible for verification of the proper implementation and effectiveness of the design-builder QA/QC Plan and related procedures.

Environmental, Health & Safety (EH&S) Manager:

The design-builder EH&S Manager is responsible for implementing the design-builder Environmental Mitigation & Compliance Program and Safety/Security Certification Management Program. He implements the requirements of this Program, chairs the Safety/Security Certification Working Group, evaluates potential hazards and vulnerabilities identified during the course of work, and prepares the final Safety/Security Certification Report and Certificate for signature of the design-builder Project Executive Director at the completion of the Project. The EH&S Manager is responsible for the successful implementation of the environmental mitigation measures adopted through the environmental process in the Record of Decision/Notice of Decision documents. The EH&S Manager is responsible for obtaining all environmental permits required by the Contract.

Prime Contracts Manager:

DBE/SBE/DVBE& Labor Compliance Manager:

Public Affairs Manager:

Deputy Project Manager Design:

The Deputy Project Manager Design will manage the engineering and architectural design process including coordination and integration of all design disciplines and systems to deliver a final design of drawings and specifications that meet the Project design criteria and performance specifications. The Design work is managed and conducted by up to five Project Engineers in the areas of Civil, Tunnel and Structures, and Stations and Facilities. Providing support to the design activities are the Manager of Engineering Coordination and Configuration Control and up to five discipline Engineering Group Supervisors. The Engineering Group Supervisors provide discipline support in terms of technical expertise and manpower to the design activities being conducted by the three Project Engineers and their assigned Assistant Project Engineers.

Deputy Project Manager Construction:

The Deputy Program Manager Construction is responsible for the organization and direction of construction and related activities for the entire Project. The Project Superintendent reports directly to the Deputy Project Manager Construction and is responsible for managing the ongoing construction activities. Reporting to the Project Superintendent are the Manager of Track, Grade, and Tunnel; the Manager of Structures, and the Manager Stations. Each of these managers is in turn supported by Superintendents, Field Engineers, and Sub-Contractors. Also supporting the Project Superintendent is the Labor, MOT, and Environmental Supervisor.

The Deputy Project Manager Construction also has a staff of managers and supervisors in the areas of MOT and permits coordination, labor relations, engineering coordination, Project field engineering, and utility field coordination to provide support to the Project.

4. Project scope

The Design-Build Contractors will be responsible for management, design, and construction of one of the 5 components of the \$5.9 billion ICS.

For the ICS, there are various alignment options under consideration. The preferred alignment will result from the National Environmental Policy Act/California Environmental Quality Act (NEPA/CEQA) environmental process outcome expected to be completed in early 2012. The example alignment and project components presented below in no way indicate a preference by the Authority for any of the alignment alternatives presented.

Fresno to Shafter

Starting 0.8 miles north of West Herndon Avenue in Madera this ICS alternative route continues south through and including a new basic HST Station in Fresno, then south through Bowles bypassing the cities of Hanford and Corcoran. The alignment may either pass through or bypass Shafter and Wasco before connecting to the BNSF just north of Bakersfield. This alignment would be approximately 120 miles in length and leads to a practical interface with the WYE which would (as part of the Phase 1 Program) connect in a westerly direction with San Jose and/or in a northerly direction to Merced. This ICS alternative route incorporates:

- Civil infrastructure including trackwork.
- The potential for a basic High-Speed Rail (HSR) station in Fresno (a platform prepared for four (4) tracks of which two (2) tracks into and out of the station will be installed in this phase) which can be used by Amtrak in case of the need for Independent Utility.
- The potential for a basic HSR station at Kings/Tulare Regional Station (a platform prepared for four (4) tracks of which two (2) tracks into and out of the station will be installed in this phase) which can be used by Amtrak in case of the need for Independent Utility.
- A basic signaling system (Positive Train Control (PTC) as required for Independent Utility.
- Interconnectors to the BNSF line to ensure Independent Utility:
 - One mile reserved for Interconnector in Bakersfield.
 - An eight mile Interconnector to a point approximately 0.4 miles north of Avenue 13, north of Fresno.

This ICS alternative route may include the following subsections:

Madera to West Clinton Avenue

Designated as the A1-1 and A1-5 subsections in the Merced to Fresno EIR/EIS, and with a total length of approximately 17 miles, this alignment starts with an interconnection to the BNSF lines in Madera County and continues south on the A1-1 subsection to the UPRR corridor just north of the San Joaquin River. It continues southward to the A1-5 subsection into Fresno, ending at West Clinton Avenue. The A1-1 portion of the alignment will be constructed primarily at-grade, The A1-5 subsection will include a new bridge over the San Joaquin River, and will include a mixture of at-grade and elevated sections into Fresno.

West Clinton Avenue to Bowles

Designated as the F subsections in the Fresno to Bakersfield EIR/EIS, and with a total length of approximately 10 miles, this alignment starts at West Clinton Avenue, continues south on one of the F subsections along the UPRR corridor through downtown Fresno to the new Fresno HST Station, and rejoins with the BNSF corridor near the community of Bowles. The entire alignment through Fresno, including the Fresno HST Station, may be on elevated guide-way or at-grade. Approximately two miles at the south end of the alignment will be at-grade.

Bowles to Shafter

Designated as the H and C2 subsections in the Fresno to Bakersfield EIR/EIS, and with a total length of approximately 40 miles, this alignment starts near the community of Bowles and continues south on the H alignment along the BNSF corridor. Just south of the community of Conejo, the alignment leaves the BNSF corridor to bypass the City of Hanford to the East, and includes a Kings/Tulare Regional Station at the intersection of SR-198 and SR-43. The alignment then follows the C2 subsection south by-passing the City of Corcoran on the east side of the city (at-grade) where it turns into the rural at-grade Subsection P. Just north of Allensworth, Subsection P turns into Subsection A which is a partially elevated rural subsection. In the vicinity of the City of Wasco, Subsection A becomes Subsection WS. The ARRA funded section enters into this partially elevated subsection for a distance of approximately 13 miles ending in the vicinity of Snow Road just north of the Bakersfield.

5. Decision factors to be used for selection from among design-build proposals

5.1. Request for Qualifications

The following are the criteria for the evaluation of Offerors responding to this RFQ and the weighting of the criteria, which will serve as the basis for qualifying Offerors to receive the RFP. The number of Offerors short listed to receive the RFP will be dependent upon the number of Statements of Qualifications submitted. However, it is generally anticipated that three to four firms will be short listed.

Pass/Fail Criteria

- Evidence that the team is licensed or registered to engage in civil works construction in the State of California, or certification by authorized principal(s) that the team will be so licensed or registered prior to contract award.
- Evidence that the engineers and architects involved are currently licensed in California to provide design services; include license numbers as applicable to principal designers. If certain engineers or architects are not currently licensed in California to provide design

services, provide certification by authorized principal(s) that these persons will be so licensed prior to contract award.

•

Evaluation Criteria Response

Design-Build Team Experience (20 points)

- Provide a description of the teaming arrangement or joint venture partnership agreement as applicable.
- Provide information for each of the individual construction team members' experience on large transit/transportation projects and/or rail projects of a similar size and complexity to this Project. (*Design-Build Rail experience preferred*)
- Provide information for each individual design team members' experience working on large transit/transportation projects and/or rail projects of a similar size and complexity to this Project. (*Design-Build Rail experience preferred*)

Technical Competence (20 points)

- Explain your approach to working as a team. Provide a functional organizational chart and summary management plan for the project.
- List the challenges you see in a Design-Build relationship between the Contractor/Builder and the Designer and specifically how those challenges will be addressed.
- Explain how the Designer was selected for the team and describe the factors that were considered in the selection process.
- Describe the team's approach to quality control and quality assurance in both design and construction of this project.
- Provide sample quality plan for this project or one used on a similar design-build project. The sample plan will not be counted within the page count.

•

Capability to Perform (15 points)

- Provide information regarding the team's ability to provide or obtain equipment, materials and labor necessary to perform the contract work within the confines of the anticipated schedule and contract requirements.
- Based upon the Project Schedule identified in this RFQ, describe preliminary milestones associated with the design-build scope of work that your team would anticipate including your Baseline schedule.
- At a minimum, address anticipated sequencing and durations of the design and civil construction. Describe your approach to preparing and utilizing a project schedule. (Note that Primavera P6 fully resourced loaded (labor, plant and materials) XER files will be required for each schedule submittal.)
- Provide a sample safety plan for this project, or an example of a safety plan that you used on a similar project. Provide the experience modification rate of the primary construction contractor(s) that will be performing and/or overseeing a majority of the construction, and any relevant related information regarding the modifier. The sample safety plan will not be counted within the page count.
- Identify where the design work will be performed and explain how design coordination will take place within the Design Build team. The Authority prefers to have the Design team located primarily at the project office, with support located in the Central California area.

Past Performance (15 points)

- Provide information regarding the Principal Designer's experience on a minimum of two (2) and a maximum of four (4) prior projects, of similar size and complexity (design-build transit or rail projects preferred), include a matrix which shows the following information:
 - Project name and location
 - Construction value of the project
 - Owner of the project
 - Project Scope of Work
 - Owner's representative name, title, and telephone number or email address.
 - SB/DVBE and DBE (or equivalent) goal and/or actual participation achieved for each project
 - Indicate delivery method (Design Build, Design-Bid-Build, CM At-Risk, Public Private Partnership, etc)
 - Describe overall project performance as it pertains to budget, schedules, changes, claims, quality and safety.
- Provide information regarding the Principal Construction Contractor's experience on a minimum of two (2) and a maximum of four (4) prior projects, of similar size and complexity; include a matrix which shows the following information:
 - Project name and location
 - Construction value of the project
 - Owner of the project
 - Project Scope of Work
 - Owner's representative name, title, and telephone number or email address
 - SB/DVBE and DBE (or equivalent) goal and actual participation achieved for each project.
 - Indicate delivery method (Design Build, Design-Bid-Build, CM At-Risk, Public Private Partnership, etc)
 - Describe overall project performance as it pertains to budget, schedules, changes, claims, quality and safety.

Disadvantaged Business Enterprises Underutilized Disadvantaged Enterprises, Small Business Enterprises, Disadvantaged Veteran Business Enterprises (SB/DVBE and DBE) (15 points)

- Describe your approach to meeting the SB/DVBE goals and DBE participation for this project.
- Provide specific information regarding your utilization of SB/DVBE and DBE (or equivalent) firms on your four (4) most completed recent projects including the following information:
 - Project Name
 - Owner
 - Owner's DBE Compliance Officer
 - Goal established
 - Actual participation achieved
 - Year work was completed
 - Any SB/DVBE and DBE (or equivalent) firms with whom you had formal partnering or mentoring relationships
 - Scope of work performed (design and/or construction and type of work)
 - A description of any innovative measures undertaken to involve SB/DVBE and DBE (or equivalent) firms.

Key Personnel (15 points)

- Provide resumes for the following positions and identify your titles for positions with these responsibilities for this project. The Authority will expect all of these key personnel positions to work full time at the project site location.
 - Officer In Charge: Responsible for the overall performance of the job and liaison with the Owner.
 - Project Manager/Director: Responsible for all day-to-day activities of the Design/Build team, and liaison with the Owner's representative.
 - Design Manager: Responsible for all elements of design for the project including integration of all design disciplines.
 - Construction Manager: Responsible for elements of construction for the project.
 - Quality Manager: Reporting to the Officer in Charge, responsible for ensuring compliance with the quality requirements of the contract and the oversight of the Design Build Quality Control and Quality Assurance efforts.
 - Environmental Compliance Manager : Responsible for complying with all regulatory environmental requirements.
 - Safety Manager: Reporting to the Officer In Charge, responsible for the overall Safety and Security Program for the Project.
 - SB/DVBE and DBE Coordinator or Compliance Officer: Reporting to the Officer in Charge, responsible for the overall implementation of the SB/DVBE and DBE Program; verifying SB/DVBE and DBE certification and for ensuring goals are met.

The Authority expects that Key Personnel identified will be available for work on the Project. Any substitution of key personnel requires specific written approval from the Authority. Should an Offeror substitute any key personnel during the RFQ evaluation process or in the Proposal, it will be grounds for disqualification of the Offeror.

References and Further Information

The Authority reserves the right to request further information if necessary to properly evaluate the qualifications. The Authority may also consider the Offeror's performance on contracts not submitted by the Offeror that the Authority is aware of or becomes aware of as a result of reference questionnaires or other means.

Offerors are cautioned that any falsification, misrepresentation or willful omission of facts shall be sufficient cause for disqualification.

5.2. RFP Response

Procurement Phase 2 is a Request For Proposal (RFP) from the Offerors selected at the completion of Procurement Phase 1 (RFQ Process). Each response to the RFP must propose a business offer that will result in the delivery of a Project of exceptional design and technical quality in accordance with the design criteria, project requirements and performance criteria that will be issued as part of the RFP.

Minimum Elements (Pass/Fail):

- Required Forms, Representations, and Certifications
- Proposer's Team Description, Organization and Responsibilities

- Management Plan

Comparative Evaluation Components:

Technical Proposal Evaluation (65%)

The Technical Proposal must address the following elements:

Project Approach (10%)

- Summary of approach to fulfilling scope and meeting project goals (Schedule, Quality, Safety and SB/DVBE goals and DBE participation)
- Identification of Unique Project Elements; Understanding of the Area
- Permitting and Jurisdictional Approvals Approach
- Plan for Packaging and Sequencing Work
- Design Coordination Process
- Construction Coordination Process
- Utility Coordination Process
- Other Third Party Coordination
- Traffic Management
 - Narrative
 - Draft Traffic Management Plan (Protection and Maintenance of Traffic Overview and Approach)
- Process for addressing maintenance consideration (design and construction)
- Public Involvement and Community Relations
 - Stakeholder Coordination
 - Outreach Anticipated
 - Methods of Mitigating Negative Project Impacts
 - Communication Tools to be Used
 - Draft Public Involvement and Community Relations Plan
 - Organization Chart for Community Relations
 -

Ability to Meet Schedules (15%)

- Narrative on schedule demonstrating a feasible approach to maximum schedule acceleration
- Reasonable assumptions regarding mobilizations, phasing of the work, risks to the schedule, Design-Builder's expectations of the Authority
- Project Schedule: A full schedule in Primavera P6 XER files that contains critical path and milestone items without costs or resources
 - Electronic Copy of Schedule (pdf is not acceptable)
 - Hard Copy of schedule
- Design-Builder's Major Milestones including design packaging
- Approach to Earned Value Schedule and Reporting on Earned Values
- CPM Network Analysis Capabilities
- Narrative on the qualifications of the Principal Scheduler

Quality (5%)

- Narrative demonstrating comprehensive approach to maximize quality
- Narrative on Quality Manager experience
- Draft Quality Management Plan for the Project

Safety (5%)

- Narrative approach to construction safety and security
- Narrative on Safety Manager experience
- Draft Safety and Security Plan for the Project

Anticipated Problems and Proposed Solutions (10%)

- Identification of potential resources shortfalls and proposed mitigation measures
- Identification of community coordination challenges and proposed solutions
- Identification of design issues and methods of resolving design conflicts
- Identification of construction issues and methods of resolving conflicts
- Identification of any issues raised by the team and proposed solutions
- Identification of commodities risk and proposed mitigation strategy

Conceptual Engineering Design (10%)

- Summary of Design Approach
- Description of any design advancement provided
- Identification of any project specific design considerations, relating them to specific elements of proposed design
- Anticipated Design Packages and Submittal Dates
- Description of any efforts undertaken as of proposal submittal date regarding coordination of design and construction
- Alternative Technical Concepts, including sketches, renderings or drawings as desired

Small Business Enterprises, Disabled Veteran Business Enterprises Disadvantaged Business Enterprises (SB/DVBE and DBE) (10%)

A description of the process used to identify and solicit SB/DVBE and DBE firms, the areas of work to be performed by SB/DVBE and DBE firms and the list of firms selected for participation. If some work has been not been awarded, but is intended for future SB/DVBE and DBE involvement, identify the work and the process that will be used to select the firms to perform the work.

Cost Proposal Evaluation (35%)

The Cost Proposal must include the following information:

- A description of what, if any, scope elements were not included in the proposed cost and an explanation for the exclusion.

- An identification of the any risk factors calculated into the total cost and an explanation of how the risk cost was derived and applied.
- A graph and spending curve that allows the Authority to compare the Proposer's anticipated expenditures needs to the Authority's anticipated funding, by fiscal year (July 1– June 30).
- A table that shows the anticipated SB/DVBE and DBE contract amounts by firm and area of work. If the funds committed do not equal the SBE/DVBE goal, then an explanation of how the goal will be met must be provided.
- Identification by commodity of the risk dollars allocated within the cost proposal and quantification of the mitigation strategy identified in the technical proposal.
- A schedule of milestones and values tied to the project schedule.

6. Methods for contract administration

6.1 Anticipated ICS Contracting Approach

- One large (\$1.8 billion range) design-build contract (at north end of the ICS).
- Three mid-size (\$800 million range) design-build contracts for discrete elements through the middle and to the south end of the ICS.
- One separate design-build contract for trackwork along the entire ICS (\$500 million range).
- Multiple small traditional design-bid-build contracts for specific up-front work, such as early small construction packages, utility relocations, hazmat removal/remediation, site demolition, clearing and grubbing, etc.
- Separate RFQs and RFPs to be released for the \$1.8 billion civil works contract and the \$500 trackwork contract, respectively.
- Consolidated RFQ to be released for the three \$800 million design-build contracts, followed by release of individual RFPs for each design-build contract to the shortlist of prequalified teams, and the best-value proposer will be selected.
- Procurement process will be structured to facilitate geographically-phased construction, starting north of Fresno and terminating north of Bakersfield.

6.1.1 Approach to the Large ICS Design-Build Contract

- Procurement to begin on the large package before that for mid-size design-build contracts.
- The package will include highly complex and varied work, as well as 3rd-party interface and multilevel government approval requirements.
- The RFP package will be released upon establishment of the shortlist of prequalified teams.
- Contract award will occur by Fall 2012.

6.1.2 Approach to Mid-Size Design –Build Contracts

- Procurement to begin shortly after procurement begins for the large contract.
- Award of all mid-size contracts to occur within a 1-year timeframe.
- Contracts to focus on discrete technical components of the ICS and scope will present clearly defined interfaces and require minimal outstanding approvals.

6.1.3 Approach to Trackwork Design-Build Package

- Procurement to be timed so that construction begins after completion of all civil work.

6.1.4 Approach to Small Design-Bid-Build Packages

- Utility relocations
- Hazmat removal/remediation
- Site demolition
- Other
-

6.2 Design-Build Procurement Process

6.2.1 RFQ release and shortlisting

- Separate RFQs will be released for the large civil works design-build project, the trackwork design-build project, and the three mid-size design-build projects as a group.
- Teams will have [2 months] to prepare and submit SOQs in response to the RFQ for the large civil works project and [6 weeks] to prepare and submit SOQs in response to the RFQ for the three mid-size projects and the trackwork project from the respective RFQ release dates.
- SOQ evaluation will consist of 2 phases:
 - Pass-fail (similar to prequalification process for traditional construction contractors).
 - Substantive ranking based on relative qualifications of teams.
- A total of [3-4] teams will be shortlisted to submit proposals in response to the RFPs for the large civil works contract and the trackwork contract, respectively.
- A total of [6-7] teams will be shortlisted to submit proposals in response to the RFPs for the three mid-size contracts, and teams selected as a contractor from the shortlist will be removed from that shortlist for future RFPs.

6.2.2 RFQ release, proposals submittal and review, and contractor selection

- Separate RFPs will be released to shortlisted teams for the large civil works contract, the trackwork contract, and each of the three mid-size contracts, respectively.
- Teams will have 6 months to prepare and submit proposals in response to the RFP for the large civil works contract and 4 months to prepare and submit proposals in response to the RFPs for each of the mid-size contracts and the trackwork contract from the respective RFP release dates.
- Proposals will undergo extensive evaluation to determine which proposed team and approach provides the “best value” to the Authority.
 - Price and technical components of the proposals will first be evaluated separately by committees with relevant expertise.
 - Price and technical proposals and respective committee evaluations will then be reviewed by a [joint committee], which will determine which is the “apparent best value” proposal.
 - The [joint committee] will request a best and final offer (BAFO) from the “apparent best value” proposer. Joint Committee members must be State of California employees.

- If the BAFO is acceptable, Authority staff will recommend the final form of contract, receive Authority Board approval of contract award, and execute the contract.

6.3 Design-Build Program Plan Oversight and Control

6.3.1 FRA Project Management Oversight

The Authority will work closely with FRA in order to meet all of the FRA requirements. The Authority will coordinate with the FRA through regularly scheduled monthly meetings, and as otherwise needed, with the assigned Project Management Oversight Contractor (PMOC). The Authority will make monthly submissions of Project budget and schedule reports at these meetings. These meetings will include FRA – PMOC representatives and Project representatives. Once a date is established for each meeting, the Project Director is responsible for the meeting agenda and materials.

6.3.2 DBPP Control and Revisions

The Authority will be responsible for the maintenance and distribution of the DBPP, as well as coordination of review, approval, and distribution of revised and new DBPP documents. All master file copies (hard copy and electronic) of the DBPP, referenced procedures, manuals, and plans will be maintained in the Project's document control system. The maintenance and distribution of the DBPP and subsequent revisions will be in accordance with the Document Control procedures.

Parties requesting revisions to the DBPP will provide a brief description of the change, reason for the change, urgency, and identify other documents affected by the change to the Project Director through the approved change control process. The Project Director will determine whether the requested change is valid and will distribute the proposed change to the appropriate Project staff for review and comment. The Authority will incorporate any approved revisions into the DBPP, and distribute the revised document to the DBPP holders. Major updates to the DBPP will be prepared at key FRA project development milestones.

6.3.3 Project Schedule

The Authority will put provisions in the Design-Build contracts that require design-builders to assume schedule responsibility and adhere to the adopted baseline schedule for the project. The monthly schedule review workshops and reconciliation will be viewed as a continuous effort to enforce adherence to the adopted schedule. Our project partners have also pre-established interface points built into the master project schedule and codified in our IGAs that they will be held responsible for meeting in order to ensure overall implementation of the project.

Various levels of schedules will be produced for the Project. They range from a Level 1 Summary Schedule for use in the public involvement program to a detailed Level 4 critical path schedule for project management and control purposes. The ICS is scheduled to be complete before September 30, 2017.

The major milestones for the Final Design Implementation Schedule are shown in [ADD TABLE]. The table is organized by Operational Area. The major milestones for the Construction Implementation Schedule are shown in [ADD TABLE]. As indicated in these tables, there will be overlaps between Final Design and Construction activities.

Given the Project's Design-Build approach, it is normal and desirable that Construction will commence before Final Design is completed. Utility Relocation is considered the front end portion of the overall construction work. Utility Relocation is included in the Design-Build schedule but is not part of the Design-Build Contracts. The utility relocation work will be executed as Cost Reimbursable (CR) agreements (Time and Materials). All interfacing points between utility relocation and start of Construction are defined in the Design-Build schedules.

The Master Project Baseline Schedule is comprehensive and includes Final Design, real estate acquisition, contractor procurement actions, all construction activities, and system safety and security certification. The Level 1 Summary version of the Master Project Baseline Schedule will be directly linked to the detailed schedule network in Critical Path Method (CPM) format. This schedule, along with the budget, will be matched to the adopted Work Breakdown Structure (WBS). The Authority shall oversee the design builders' schedule progress in accordance with applicable review of Project schedule procedures.

6.3.4 Project Budget

The Project Budget for the Final Design and Construction phase of each Project will include Final Design and Construction costs and financing costs through 2017, and will reflect the outcome of the Authority's negotiations for firm fixed price contract with the design-builders. Sources of funding to support the Project budget will be described in a Project Financial Plan, and the accuracy of the budget figures will be analyzed against actual costs upon Project completion.

The Authority is committed to managing to the targeted subcontract allowances and also to the budgets established for the partner agencies, including its own. It is the objective of the Authority to avoid, if possible, or to minimize, if necessary, the use of Project budget contingency. As stated, this will continue not only through the design effort but through sub-contract awards, vendor selections, construction and ultimate project implementation.

6.4 Example ICS Project Design-Build Contracting Approach

This section describes the Authority's anticipated contracting approach to an example ICS Project using the design-build delivery method.

6.4.1 Program and Project Management Responsibilities

This section describes the generally anticipated management roles and responsibilities of the principal Project participants during Final Design and Construction of the Project.

6.4.1.1. Project Office

Upon receipt of the Notice to Proceed, the design-builder will establish a Project Office in an acceptable location, as defined by the applicable contract. The Authority will continue to have its Project offices in Sacramento. However, managers and key Project staff from the agency, the PMT and the design-builder will be located at the Project Office. Day-to-day management of Project activities will be directed from the Project Office. Facilities suitable for conducting coordination and oversight activities will be provided. Office and meeting space will be provided for representatives from other agencies involved in the Project on both a short- and long-term basis. Construction-only

related staff will be located in field offices (trailers) as soon as construction staging areas are available.

6.4.1.2. Management Structure

The proposed management structure as well as roles and responsibilities of the Project participants during Final Design and Construction phases will be coordinated with the design-builders and other stakeholders.

6.4.2 Management and Project Controls

A key element to the success of the Project is the establishment of effective Project Controls. Some of the tools for managing elements critical to the success of the Project are discussed below. These tools will be further defined as the Project proceeds beyond Final Design into Construction.

6.4.2.1. Technical and Scope Control

Scope control will be achieved by the structure of the Design-Build Contract. Under the terms of the contract, only the Contracting Officer will be able to authorize a contract change. The Authority will review the designs as they are completed as well as system performance specifications to assess the design builder's compliance with the design criteria and standards and basis of design report.

6.4.2.2. Quality Assurance/Quality Control (QA/QC)

The requirements for the QA/QC program to be applied to the Project during the completion of preliminary engineering and during the Design-Build phase of the Project will be addressed in the Authority Quality Program Plan. The Authority Quality Program Plan requirements will be applicable to Project participants including the Authority, the design-builder, and suppliers and subcontractors. This Plan will comply with the guidance contained in the requirements of ISO 9001-1994, Quality Systems – Model for Quality Assurance in Design, Development, Production, Installation, and Servicing. The design-builder, along with applicable suppliers and subcontractors, will have a quality assurance plan that addresses and complies with the requirements of the Authority Quality Program Plan.

The Authority Project QA/QC Manager will be assigned the authority to ensure that a QA/QC system is established, implemented, and maintained during the course of the Project in accordance with the requirements of the Authority Quality Program Plan. In matters related to quality, the Project QA/QC Manager is complete and ready access to the Authority Project Director.

The design-builder will have the primary responsibility for implementing a QA/QC program during the Design-Build phase of the work that meets the guidelines and requirements of the FRA and the Authority Quality Program Plan. The Authority will conduct oversight of design builders' quality-related activities to verify that requirements are met and that the design-builder QA/QC program is effective.

The design-builder QA/QC Plan defines the processes, controls, checks, and inspections that are applied to all quality-related Design-Build work processes implemented by the design-builder during the Design-Build phase of the Project. The design-builder has established a quality assurance

organization independent of the design and construction groups. This quality assurance organization is led by the design-builder Project Quality Manager who reports to the design-builder Project Executive Director.

The design-builder QA/QC Plan and implementing procedures and instructions, including revisions, will require approval by the Authority and must be in place prior to the start of work (i.e. design control procedures and instructions must be in place prior to the start of Final Design and QC inspection procedures and instructions must be in place prior to the start of construction).

The Authority Quality Program Plan, and its implementing procedures and instructions, will be reviewed for effectiveness and adequacy by the Authority on an ongoing basis during the course of the Project.

6.4.2.3. Schedule Control

The PMT will prepare and maintain the Master Project Schedule. The Master Project Schedule will include activities, durations and relationships for all the work to be completed by the design-builder, and the tasks to be completed by the other Project participants, including federal, state and local agencies, tribal entities, special districts, utility companies, railroads, etc. Updates from all Project participants will be submitted monthly to the Authority in accordance with the requirements defined in the Contract Documents with the design-builder, or in the Intergovernmental Agreements or other third-party agreements between the Authority and the other Project participants.

The Master Project Schedule will be updated by the Authority using the latest version (P6 or later) of Primavera Project Planner scheduling software. This will provide a Critical Path Method (CPM) schedule necessary to control and monitor the work. The Authority Project controls group will work closely with the design-builder and the other Project participants to verify that monthly schedule updates meet the objectives of the Project.

The Master Project Schedule will cover the entire Project and is an evolving document that will be revised as necessary to meet changing conditions with due diligence being paid to Project milestones required by the Design-Build Contract.

The Master Project Schedule will permit the summarization or expansion of the various network elements by phase, work elements, locations and responsible organization as identified in the Work Breakdown Structure (WBS). It will be the primary tool for assessing overall Project status and is a critical aid in identifying and managing the interfaces and interdependencies between the design-builder and the other Project participants. Schedule reviews and updates will be conducted on a monthly and as-needed basis to assure adherence to the schedule requirements. Any schedule changes are to be analyzed to model “what-if” scenarios, to evaluate potential delays, or to develop work around solutions.

6.4.2.4. Progress Payments

Progress payments for the Design-Build work will require that work equaling the value of the payment requested is completed and adequately documented as in full compliance with the contract requirements by the design-builder. The Authority will require that the monthly application for payment show total value of work performed for each milestone achieved for each individual work activity completed during the monthly payment period by WBS. The Project controls group will

be responsible for evaluating and recommending progress payments for approval. Application for payment will be required to include a monthly progress report, an approved updated schedule of values, a detailed CPM schedule and validation that the as-built drawings have been updated. Progress payments will relate to product output on a milestone basis since the Authority must agree to each proposed schedule and cost activity and assume responsibility of recommendation for acceptance.

6.4.2.5. Cost Control and Job Accounting Systems

Cost control will be accomplished through careful identification, coding, tracking, trending, forecasting and reporting of Project costs. Approved budgets will be established at the outset of the project and kept current through the application of change orders throughout the course of the work. Cost control will be provided through the continuous monitoring of cost commitments as well as period and accumulated cost performance. Cost commitments, in terms of awarded contracts, will be compared with budget estimates generating revised cost Estimates at Completion (EAC) reflecting any variances. As change orders are approved, the revised commitment will adjust the current budget and the current EAC accordingly. In cases where contractual arrangements allow changes in quantities or unit costs to have the ability to affect cost outcome, periodic and accumulated cost expenditures will be trended at frequent intervals generating cost performance analysis which in turn is used to estimate final EAC costs.

Job accounting will be accomplished, in conjunction with the Authority Accounting Department, through the use of a previously established Code of Accounts and Work Breakdown Structure. Strict administration and application of these account codes to budgets, changes, actual and EAC costs ensures that costs remain accurately and correctly categorized in the system.

The Project cost system will provide the ability integrate the schedule information with cost for the purpose of developing and maintaining cost projections and cash flows. The system will be a key component of the integrated Project management, financial accounting, resource management, and reporting systems.

6.4.2.6. Tracking Federal Project Cost

The Code of Accounts and the Project WBS, applicable to the CPM Schedule, are being developed such that they will support the segregation of Federal Project costs into the appropriate SCC codes and identify and segregate non-Federal Project costs for clear differentiation. Unique codes distinguishing non-Federal from Federal Project costs will be assigned and communicated down to the expenditure level for accurate collection and differentiation in the cost and payment system.

6.4.2.7. Document Control

Early in the Design-Build phase of the work, the Authority will establish a document control system separate from the design-builder to control Authority-related documentation. The document management system will roll up into the Authority's overall document management system for all ICS projects.

The Authority electronic document control system will be managed by the PMT. The Authority system will allow Authority team members and outside reviewers, whether in the Project office, or

at a remote location, to share Project information, including drawings and other documentation submitted by the design-builder to the Authority for review.

The design-builder will utilize a document control system during the Design-Build phase to control the design-builder-related documentation. Both design builders' document control system and the separate Authority document control system will meet document control requirements addressed in the Authority Quality Program Plan.

6.4.2.8. Cost Estimating

The adjustment of contract cost by change order can be accomplished by submittal of a lump sum proposal, changed quantities times unit prices, or time and material pricing and accumulation. In order to conduct independent cost estimates for contract changes requested by the owner, contractor or end user; and provide other cost services such as "what-if" cost analysis, the Authority will establish an independent cost estimating group.

Cost estimating will be performed by professional cost estimators led by a Cost Control Manager supervising a Senior (Lead) Estimator and other estimators as required for the workload. One benefit of the cost estimating services being provided by the PMT staff is that there are corporate estimating services available to supplement staff requirements when the workload warrants it.

Cost estimating will be performed utilizing an estimating system populated with unit costs and other estimating data specifically developed for this Project and supplemented by Project cost information derived from contract proposals, change order submittals, invoices and other administrative sources to supplement the systems database of information. The database will also receive an annual review by the Senior Estimator to validate the accuracy of the information therein. Items discovered during this review will be adjusted to improve the accuracy of the estimating system.

Cost estimates will be provided in one of three formats generally corresponding with the level of information available upon which to base the estimate. These formats include rough order of magnitude (plus or minus 30% or greater depending upon the level of information), engineer's estimate (plus or minus 20%, but this is highly dependent upon the detail and comprehensive nature of the scope definition and the quantities available) and definitive estimate. Definitive estimates will carry an accuracy level of less than plus or minus ten percent and will be the preferred deliverable for cost recommendations to support procurement operations.

The Lead Estimator will have responsibility for overall oversight and coordination of the estimate preparation process under the supervision of the Authority's PMT Cost Control Manager (CCM). Once the estimate has been reviewed and recommended to the PMT Project Manager and Authority's Project Director for use, a copy of the estimate and any supporting work products will be kept in the permanent Project records.

6.4.2.9. Progress Reporting and Report Management

Monthly Progress Reports will be issued that will document cost, schedule and physical progress expressed in both narrative and analytical form. Narratives will include descriptions of monthly accomplishments, cost and schedule performance, milestones achieved, and other pertinent performance segregated to focus upon each project participant in addition to the design-builder. Analytical information will include numerous representations of cost and schedule including planned versus actual performance. Reports will be prepared by responsible PMT personnel. The monthly

reports submitted in conjunction with the monthly pay request must full comply with the Quality Program and must document thoroughly that the work performed and bill was in full compliance with the contract requirements.

6.4.3 Labor Relation and Policy

This section addresses labor relations issues.

6.4.3.1 Responsibilities

The design-builder will be responsible to provide all necessary labor required to complete the Design-Build work until substantial completion. The design-builder will utilize union labor for the work to be self-performed during construction. Subcontractors will be utilized in certain specialty areas. Subcontractors will consist of union and merit shop contractors. Subcontractor proposals shall be evaluated and awarded to the best qualified bidder.

The design-builder will comply with all affirmative action and equal employment opportunity requirements. Federal and local regulations applicable to the work shall be managed and adhered to during Construction.

The design-builder and its agreements with labor providers and subcontractors will continually be exploring ways to improve safety, quality, and productivity. A Drug and Alcohol Program for all Project personnel will include pre-hire, for cause, post accident, and random testing.

6.4.3.2 Wage Rates and jobs Classifications

The wage rates and fringe benefits as provided in the appropriate local collective bargaining agreements on the date of notice-to-proceed, including all increases due during the construction of the Project, shall be the wages and fringes paid over the duration of the Project. Classifications including apprentice designations shall follow local union guidelines. All labor will be subject to compliance with the rules and regulations that apply to the Project including Davis-Bacon wage requirements.

6.4.3.3 Wage and Hour Requirements

The design-builder will utilize time clocks, electronic badging systems, or other systems for effective management of the timekeeping process for personnel entering the Project site. All labor will be paid in accordance with labor agreements in place at the time the work is performed.

Shift work and around the clock work is envisioned for some aspects of the work due to the severe traffic limitations on hours of work and other local restrictions. Shift differential will be provided in accordance with governing agreements and laws.

6.4.3.4 Federal, State and Local Regulations

The labor agreement shall not violate any applicable federal or state laws. This includes all affirmative action and equal employment opportunity requirements. Local regulations applicable to the work shall be managed and adhered to during Construction.

6.4.3.5 Project Labor Agreement

The labor agreement shall not violate any applicable federal or state laws. This includes all affirmative action and equal employment opportunity requirements. Local regulations applicable to the work shall be managed and adhered to during Construction.

6.4.4 Risk Assessment

The Authority has conducted an evaluation of Project risk and initiated the development and implementation of a Risk Management Plan.

6.4.4.1 Authority Risk Evaluation

The Authority will identify and evaluate risk during the Final Design and Construction phases of the Project. The categories of risks include (but are not limited to):

- Scope – Potential for changes in Project scope.
- Agreements – Potential for delays due to difficulties in securing necessary permits and other approvals.
- ROW Acquisition - Cost and time exposure related to acquiring the real property needed to construct the Project.
- Utility Relocation – Potential for changes due to unknown utilities and uncooperative utility companies.
- Third-Party Coordination – Potential for changes due to delays in necessary design reviews and actions required to facilitate construction by railroads, special districts, tribal entities, and federal, state and local agencies.
- Design Process – Potential for changes due to required alignment changes, major standards changes, or delays in owner approvals.
- Procurement – Potential for market changes that affect the prices for the subcontracted items that are yet to be bid and the commodities subject to the Design-Build Contract's commodities escalation clause.
- General Construction – Potential for changes due to availability of specialist labor, changes in restrictions on roadway traffic management, weather delays, delays in provision of owner-responsible elements, and construction accidents.
- Tunnel Construction – Potential for changes due to collapse, settlement, and unknown ground conditions.
- Viaduct Construction – Potential for changes due to unknown ground conditions and changed work restrictions.

6.4.4.2 Authority Risk Management Plan

Based upon the risk analysis, a Risk Management Plan will be fully developed by the Authority that identifies the activities, procedures and organization needed to appropriately manage the risks, and establishes the budget and schedule milestones (including contingencies) considered in this Risk Management Plan. These milestones may include:

- Right of Way Acquisition Completion
- Utility Design Completion
- Utility Relocation Completion
- Final Design at 60% (including systems allowances)
- Final Design at 100% (including all allowances)
- Tunnel Completion
- Viaduct Completion

High risk elements will be identified from the risk assessment, and appropriate mitigation strategies will be refined. The Plan will show a time-phased allocation of contingency that corresponds to the occurrence of individual risks and the ability for risk mitigation. The risks will be monitored throughout the Project, focusing on key activities such as the start of utility relocation and other critical path elements. In addition, the risk analysis will be updated at major Project milestones.

6.4.5 Environmental Analysis and Mitigation

The Merced to Fresno and Fresno to Bakersfield environmental processes are being completed. The anticipated dates are below.

Environmental Milestone	Merced to Fresno	Fresno to Bakersfield
Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR Available for Public Review	July 2011	July 2011
Final EIS/EIR Notice of Availability (NOA)	January 2012	January 2012
Record of Decision/Notice of Determination Published	February 2012	February 2012

6.4.5.1 EIS and Mitigation

The Merced to Fresno and Fresno to Bakersfield Draft EISs/EIRs include mitigation measures. The next step is to review the impacts and mitigations with the affected parties and obtain agreement on those mitigations. This will be finalized between the Draft EISs/EIRs being available for public review and the Final EISs/EIRs NOAs being published.

6.4.5.2 Environmental Assessment and Amended ROD

Amendments to the ROD are not anticipated.

6.4.5.3 Transportation Management Plan

[INSERT CURRENT STATUS/NEXT STEPS]

6.4.6 Procurement/Contract Administration

The following section describes the procurement approach for the acquisition of services, labor, material and equipment for the Project and the administration of the resulting contracts. The overall procurement approach addresses the specific issues related to:

The Design-Build Contract with the design-builder for Authority services.

The professional services contract with the consultant team to provide technical and Project management support services to the Authority.

The Authority will administer these contracts and agreements as required to successfully complete the Project.

6.4.6.1 Pre-Award Procedures

The Authority will select the design-builder in accordance with California Public Utilities Code §185036 and with the Authority's Procurement and Contracting Policies and Procedures.

6.4.6.1.1 Pre-Award Procedures

For each contract, pre-award procedures will be followed to ensure that:

All provisions required by federal and state regulations are included

Responses to requests for information have been included

Any proposal/bid protests have been handled in accordance with the State's or the Authority's procurement procedures, as applicable, and FRA requirements.

The Authority has assigned a Contracting Officer to the Project to support procurement and contract administration-related activities.

6.4.6.1.2 Contract Administration

Contract administration is the day-to-day management of contracts and includes contractor oversight and direction, processing invoices and contract changes, grants administration, and contract compliance. The contract administration duties are the responsibility of the Authority's Contracting Officer (CO) and the Contracting Officer's Technical Representative (COTR).

6.4.6.2 Authority Procurement Plan

The Authority will initially procure the services of several Architectural/Engineer firms for Indefinite Delivery Indefinite Quantity Professional Services, and task orders will be issued only as the need arises for such work as design of early procurements, review of design build alternative technical concepts, and design of later small package design bid build contracts, such as fencing, security and sound walls.

The Authority will initially procure the services of several Construction Management firms for Indefinite Delivery Indefinite Quantity Professional Services, and task orders will be issued only as the need arises for such work as management of the construction of the early and late packages, constructability reviews of alternative technical concepts, review of design build contractor submittals, and possibly management of the design build construction contracts.

The early design bid build contracts will follow. The design build contracts will follow in logical progression. Lastly, the later design bid build contracts will follow, if any.

6.4.6.2.1 Project Management

The Authority will provide oversight and coordination of the design-builder, as well as the direction of activities related to other Project stakeholders. The Authority staff will be supported by the PMT that will provide specific technical and management expertise needed for the successful execution of the Project. These consultants will be co-located with the Authority's staff and will function as an integral part of the Project team.

6.4.6.2.2 Project Management Oversight

The Authority will fully support the FRA's PMOC in its efforts to monitor the performance of the contract activities. This will include participation in PMOC meetings, provision of appropriate technical and management information and timely responses to PMOC requests.

6.4.6.2.3 Consultant Services

Consulting services for technical, management, and legal support have been and will be procured as needed through the Authority's procurement process. The scope of these services will be determined by the Authority staff and may be modified from time to time as required to achieve Project goals and objectives.

6.4.6.2.4 Design Construction Contracts

The Authority will enter into contracts with design-builders and other contractors to implement the Project. The design-build contracts will cover design and construction activities. The design-builder will have full responsibility (design, materials and workmanship) for the construction contract work as defined in the contract documents.

6.4.6.2.5 Design and Construction Management Oversight

The Authority has the responsibility for oversight of the Final Design and Construction of the Project in accordance with their Project management procedures. All construction-related quality assurance activities, including quality control inspections, will be performed by the design-builder or their subcontractors under the oversight of the Project quality assurance staff. These activities will include review of design drawings and specifications, construction and inspection activities and procedures; surveillance of construction and QC inspection activities; review and management of construction changes; inspection of construction hold points; and review and correction of non-conforming work. Project staff will also conduct oversight of Project cost control and reporting; schedule reviews and analyses; DBE/SBE and EEO auditing; real estate acquisition management and oversight. The Authority will conduct periodic quality audits and specific inspections of critical elements in accordance with the quality control/quality assurance plan.

6.4.6.3 Design Builder's Subcontracts and Procurement Plan

Design builder's subcontracts and procurement activities will include receipt of the specification and/or material or service requisition; supplier/subcontractor bidding and selection; negotiation of, entry into, and administration of purchase orders and subcontracts. Additionally, the design-builder

will engage in supplier surveillance; and receipt, acceptance, and storage of equipment and materials at the jobsite. The design-builder will develop a procurement/subcontracting plan consistent with the overall Project milestone schedule for purchasing major equipment, subcontracts and materials and will develop and maintain the Material Assignment Schedule (MAS).

The MAS will delineate the division of responsibilities among parties, including responsibilities for the design-builder management, engineering, contracts, procurement, and construction. The design-builder will manage equipment and materials on a real-time basis throughout all Project phases, from design to final acceptance. The design-builder will effectively integrate material control, purchasing, expediting and inspection, traffic and logistics, inventory control, and supplier information.

Consistent with the obligations in the Design-Build Contract, the design-builder will establish a DBE/SBE plan to ensure compliance with Project DBE/SBE requirements. The DBE/SBE plan will require suppliers and subcontractors to diligently comply with their commitments to the program. The MAS will be used as a tool to identify work packages that, in keeping with the Project's goals, will provide meaningful opportunities for disadvantaged businesses. The Authority shall oversee the design-builder's compliance with this obligation.

6.4.6.3.1 Allowance Items

The Design-Build Contract may include allowances for the pricing of certain subcontracts that may be determined to be subject to uncertain future pricing. The Authority may determine during Contract negotiations with the design-builder that the proposed pricing for these subcontract scopes are high due to the level of design at the completion of PE, the extended schedule for implementation, and potential changes in market conditions. During the subcontracting process for these allowable items, the design-builder will provide the Authority with advance copies of bid documents and allow participation of the Authority in the bid evaluation process. Specifically, the design-builder will provide the Authority with the following for each allowance item:

- Bidder pre-qualification criteria
- The potential list of bidders for approval
- The request for proposal package
- The request for proposal and evaluation award criteria for review and approval

The Authority will have representatives on the technical and commercial evaluation teams for each allowance item. The design-builder will submit the bids for each item along with the evaluated price and its recommendation for award to the Authority for approval. Once the subcontract is awarded for a specific work scope, that work, including all technical, cost, and schedule risk will become a part of the firm-fixed price Contract.

6.4.6.3.2 Permanent Materials

The design-builder will procure or subcontract to provide all equipment, materials and services required to complete the Project.

6.4.6.3.3 Construction Equipment

Construction equipment will be obtained through purchase, rental and lease agreements based on the anticipated use of the equipment, lifecycle costs and durations required.

6.4.6.4 Quality Assurance Requirements

Quality assurance requirements for the Project are detailed in the Authority Quality Program. These requirements and controls are applicable to the Authority, the design-builder, and consultants, suppliers, and subcontractors who perform purchasing activities as part of their work on the Project.

6.4.6.5 Design Builder's Subcontracts and Procurement Plan

As a part of its Small Business Program Plan for Construction Contract Compliance, the Authority will provide contractors guidance for outreach and training in addition to specifying reporting requirements to assure achievement of the Authorities goals.

6.4.7 Design Program

The primary objective of the design program is to advance the existing Preliminary Engineering designs through Final Design resulting in issued-for-construction documents that are complete, accurate, and in full compliance with the appropriate criteria and standards.

6.4.7.1 Management of Design

The design-builder is responsible for the preparation of Final Design documents that are fully compliant with the Design-Build Contract. All Final Design documents will be prepared, under Authority oversight, by the "engineer or architect in responsible charge" in the design-builder organization. The Deputy Director of Design will lead the Authority's oversight role supported throughout by technical staff for each of the appropriate disciplines.

6.4.7.2 Design Criteria, Standards, and Specifications

The Project will utilize design criteria and standards from the Authority, impacted local and state agencies and affected utility companies as top level design requirements for the Project. Changes to the design criteria and standards that are identified during the course of the Project must be approved by the Authority and must be processed through the formal design change process before the changes are implemented by the design-builder.

The design-builder will ensure that the Final Designs, including drawings, specifications, and other design documents are in accordance with the design criteria and standards adopted for the Project. If either the design-builder or the Authority determines that there is a compelling reason to deviate from these requirements, the proposed deviation will be documented and submitted to the appropriate party for evaluation. The processing of the deviations will follow the procedures for review of changes to design standards.

During Final Design, design review documents shall be submitted to the Authority in accordance with the Design-Build Contract. The design review documents will include intermediate and final

design drawings and technical specifications used to design, procure, install, and construct the Project. In addition, these design submittals will be provided concurrently to applicable public agencies and jurisdictions for review and comment. These reviews will ensure that the design-builder design documents comply with the design criteria and standards as well as other public agency requirements.

6.4.7.3 Configuration Management

The design-builder will establish a configuration control process that requires the evaluation, coordination, and approval of changes in the configuration of an item after establishment of a technical baseline. This baseline must be in compliance with the appropriate design criteria and standards and any approved deviations.

The contract provisions and agreements the Authority will have with the design-builder and the project partners will emphasize a burden of proof that will be enforced regarding severely limiting the types of events or conditions eligible for a change. This will apply to the Design-Build contract as well as the enforcement of betterments with project partners and third parties such as utilities. Changes to approved drawings or specifications must be made in accordance with established procedures. The Authority will monitor design builders' design changes for compliance with design criteria and standards.

Permanent files will be maintained of contract documents which will include historical information relating to Project changes. As the Project is implemented, the configuration control process will evolve to include the documentation of the completed changes in terms of Project Record Documents that are specified in the Project Quality Manual.

6.4.8 Construction Management

The Authority will provide day-to-day oversight of the Design-Build Contract during Final Design and Construction to verify the work is completed in accordance with the Project's standards and design criteria.

6.4.8.1 Roles and Responsibilities – Design-Build Construction

The design-builder has the primary responsibility for construction management. The design builder's approach to construction management of the Project will be detailed in the design builder's Project Management Plan. The Authority will be responsible for conducting extensive oversight of the design builder's construction activities to ensure that construction proceeds in compliance with Project requirements. Specific oversight activities will include the following:

- Review and approval of the design-builder construction and QC inspection procedures
- Review and approval of the design-builder Permitting Plan
- Identification and observation of construction-related hold points
- Surveillance of design-builder and subcontractor construction and QC inspection and test activities
- Surveillance of the design-builder's construction-related personnel safety and environmental programs
- Surveillance of the design-builder's permitting and maintenance of traffic processes
- Monitoring of the design-builder's field change and nonconformance control processes.

The Authority will also oversee the Project's right-of-way acquisition and utilities relocation programs during the construction of the Project.

6.4.8.2 Construction Contract Administration

The Authority will administer the Design-Build Contract with the design-builder during the construction of the Project. Key contract administration-related activities that will be conducted by the Authority will include the following:

- Approval of key the design-builder personnel performing construction-related activities
- Review and concurrence of the Project construction schedules
- Monitoring and evaluating construction work progress and processing payments to the design-builder based upon that work progress
- Managing, approving and processing design and construction-related contract changes.

Additional detail on these activities will be described in a Construction Management Plan and in specific Project procedures.

6.4.8.3 Construction Safety

As will be described in the Project's Safety and Security Management Plan, the responsibility for construction safety for the Project will be assigned to the Contractor. The design-builder will assign an ES&H Manager to the Project. The design-builder's Project Executive Director, through the Project Director and the ES&H Manager, is responsible for all matters concerning environmental, safety and health on the Project including implementation of an effective ES&H program.

The ES&H Manager will be responsible for establishing and implementing the Project ES&H Program meeting all applicable federal, state and local codes, owner's site requirements, and ES&H core processes. This Program will be documented in the Project ES&H Plan.

The ES&H Plan will be reviewed and approved by the Authority and monitored for proper implementation. All Project participants performing activities on the work site will be required to comply with the requirements of the Project ES&H Plan.

6.4.8.4 Change Order and Claims

The Authority's Contract Administration Officer (CAO) oversees technical and cost management of change orders and claims. The goal of the Project organization is to avoid disputes and claims by establishing a relationship of trust and confidence. As part of this relationship the parties shall disclose and discuss any issues that may affect the cost or time of performance for the work at bi-monthly meetings between senior representatives of the parties. Once an issue has been identified as a potential claim, the first attempt at resolution will be at the field level through best efforts and good faith negotiations. If an issue cannot be resolved at the field level, it will be elevated within each organization to senior representatives of each party in an attempt to reach agreement in an informal manner. If agreement cannot be reached, the parties

6.4.8.4.1 Change Order Control

A procedure for change order control will be included in the Construction Management Manual consistent with the change order process to be described in the Design-Build Contract. The

procedure and methods developed for identifying and processing change orders will be consistent with the requirements of the Design-Build Contract provisions.

6.4.8.4.2 Payments and Claims Close-out

A procedure for handling payments and claims will be developed consistent with the payment and claims close out process to be described in the Design-Build Contract. The specific procedures and methods developed for identifying and processing change orders will be consistent with the requirements of the Design-Build Contract provisions. Processing of payments and claims will be specified in the Construction Management Manual.

6.4.8.5 Logistics Plan

A Constructability Report will be prepared by the design-builder to assess constructability, access, work methodology, and material selection. Focus will be placed on construction site laydown, construction access, staging, and significant viaduct erection issues. The latter will include construction across major arteries, constructability of concrete piers, stations and tunnel construction methods.

Major work elements will include utility work, surface street work, maintenance of traffic (MOT), at-grade track work, at-grade bridge crossings, viaduct structures, tunnels, stations, detention ponds and work adjacent to an active railway line.

The Project location will present unique challenges for access to the construction operations. Certain assumptions concerning utilities, railroad and highway interface, construction site access, adequate laydown area, craft parking, operational work hours and the ability to stock pile material must be considered in the development of the construction schedule.

The construction operations have multiple interfaces and coordination with public agencies. These agencies will be critical in developing maintenance of traffic operations, access to work zone, staging areas, construction permitting and relocation of publicly owned utilities.

Construction staging areas and laydown needs will be critical components to the construction staging and sequencing procedures. Having access to critical materials close to the construction zones will be essential in maintaining construction cost and schedule. Proposed material laydown/staging areas will require the acquisition of temporary right of way to support these locations. The Constructability Report will provide a plan to deal with construction craft parking and laydown and staging areas. The actual locations to be used will be defined during early activities and Final Design.

6.4.8.6 Value Engineering

The design build contractor will be obligated by the contract to conduct value engineering studies on the preliminary design selected, regardless of whether it is on the provided to the contractor one developed as an alternative technical concept as a part of the proposal process. Any cost savings will be shared between the contractor and the Authority.

6.4.8.7 Materials Testing

Materials testing for both the utilities relocation work and the design-build work on the Project will be the responsibility of the design-builder. The design-builder will be required to retain an independent third-party for materials testing. Materials testing will be performed in accordance with the codes and standards included as part of the Contract and as specified in the technical specifications prepared by the design-builder and reviewed by the Authority. The Authority will monitor the design-builder material testing activities during construction and will verify that the testing is conducted in accordance with quality assurance and technical requirements.

6.4.8.8 Utility Relocation

Relocation of utilities will be required in order to construct the Project as designed. Some work will be done on utility relocation in advance of the remaining Project construction in order to maintain the Project schedule.

The Authority has arranged for the required utility relocation work to be performed on a Time and Material payment basis. Unless self performed by the utility company, the design-builder will act as the agent for the Authority regarding all issues with utility relocation, including coordination of design, access to site, construction, negotiating scope agreements with each utility company and negotiating the price and schedule for all work to be performed by utility companies in support of the project. Utility relocation design drawings may be prepared by either the utility companies or the design-builder. Unless self performed by the utility company, the work will be performed by the design-builder and its subcontractors as well as the various utility companies. All utility relocation work will be negotiated, coordinated and, in some cases, installed by the design-builder or its subcontractors. The design-builder will be the point of contact between all utility companies and the Project. As design and construction progress, the Authority will interface with the design-builder on a day-to-day basis.

6.4.8.8.1 Interfaces and Relationships

The design-builder will be the first line of communication with the utility companies and the lead in scope negotiations and coordination with each utility company to establish an agreement, scope and cost for their work on the project. The design-builder will coordinate all work in the field for each utility company and schedule their work according to the Project baseline schedule. The design-builder, their subcontractors, and each utility company will be responsible to apply for their permits from agencies as required to perform their work on the project. Each permit required is indicated on the Project baseline schedule to allow review time and to coordinate the mobilization and work of the field crews. The Authority's inspectors and Construction Oversight Manager will assist in communication and coordination with these agencies to expedite the permitting process.

As there will be several utility companies accessing all project segments of the utility corridor, the design-builder will establish control of these areas or work zones to allow safe and efficient access for the utility companies to plan and perform their work in a timely fashion. The Authority's field inspectors will monitor the design builder's arrangements and coordination of these work zones. The design-builder is required to provide progress and schedule updates to the Project Community Outreach team so that it can interact with the local businesses and residents to keep them aware of the progress and potential impacts to traffic and local access.

6.4.8.8.2 Roles and Activities

The Authority's Construction Oversight Manager will oversee and direct the field inspectors and work closely with the design-builder Utility Manager and staff to assist in coordination with agencies and utility companies. The PMT will attend all coordination meetings and maintain open dialogue and correspondence with each stakeholder affected by the work. The Authority's Construction Oversight Manager will assist the design-builder in making field decisions to react to conditions or activities that could impact budget or schedule. As necessary, the Authority's Construction Oversight Manager will make field decisions regarding work that is outside of the anticipated utility relocation scope.

All field work will be closely monitored by Authority inspectors. These inspectors will keep track of all hours, material and equipment used in this effort while tracking the production of the field crews performing the work. As this work progresses under the design-builder control, daily reports will be developed by each inspector that will record the work installed or completed, the material placed, the equipment used as well as any issues regarding safety or quality. Any issues recognized regarding safety or quality will be orally communicated to the design-builder foremen or superintendents immediately and these conditions will be noted on the Daily Reports or in a formal written notification of an unsafe condition. Daily Reports will be reviewed by the Authority's Construction Oversight Manager and a weekly report will be developed from this information. These reports will be used to verify the monthly billings by the design-builder and each participating utility. The Authority's Construction Oversight Manager will be responsible to approve invoices for all work in the field.

6.4.8.8.3 Utility Betterments

All design, supply, construction, installation and management work in support of utility relocation necessary for construction of the Project will be paid for by the Authority. Any utility betterments (concurrent activities not required for construction of the Project) or additional property required for the betterments will be the responsibility of the utility companies. Any work performed by the utility companies or their subcontractors in support of these betterments will be noted in the Daily Reports by the Authority inspectors. Betterment work will not be permitted to have any effect on the Project schedule or budget. Any additional property required in support of these betterments will not be the responsibility of the Project or the Authority.

6.4.8.8.4 Design-Build Contract

Outside of the utility relocation work being handled under the Time and Material arrangement and the allowances established for certain subcontracted elements of work, the balance of the project scope will be handled under the firm fixed portion of the Design-Build Contract. Some of this firm fixed price work in the Design-Build scope must be performed in parallel with the utility relocation work. This work may be required to support the final location of the utilities and will make best use of the interruptions to the traffic by installing several complimenting features of the Project design. Every effort is being made by the design-builder and the Authority through design and coordination of work to minimize the number of traffic diversions during Project construction. The scope of work under the Design-Build budget will also be monitored by Authority inspectors to verify the work is being performed per the design drawings and the contractor QA plan is being implemented. The Authority Construction Oversight Manager will be responsible to verify that the work is properly recorded and the billing for this work is tracked under the Design-Build fixed budget.

6.4.9 Conflict Resolution

In its efforts to foster cooperation and an effective working relationship among the participants, the Authority will require that all parties actively participate in partnering techniques to identify and resolve issues that may arise during Project implementation.

The Authority will utilize the following dispute escalation and resolution process as will be set forth in the Design-Build Contract.

6.4.9.1 Cooperation Communications

The design-builder and the Authority are required to work with each other throughout the Project and have agreed to communicate regularly with each other at all times so as to avoid or minimize any claims. As part of the relationship of trust and confidence established between the design-builder and the Authority under the Contract, both parties shall disclose and discuss any issues that may affect the cost or time of performance of the Work, whether or not such issues result in a claim, at quarterly meetings between senior representatives of the parties.

6.4.9.1.1 Negotiations

The design-builder and the Authority will first attempt, within fourteen (14) days of the initiation of a Claim, to resolve the claim at the field level through best efforts and good faith negotiations between the design-builder's authorized representative and the Authority's authorized representative.

6.4.9.1.2 Elevated Negotiations

If a claim cannot be resolved through the parties' authorized representatives, then, upon the request of either party, design-builder's Senior Representative and the Authority's Senior Representative shall meet as soon as conveniently possible, but in no case later than fourteen (14) days after such a request is made, to attempt to resolve such claim. Prior to any meetings between such representatives, the parties will exchange relevant information that will assist the parties in resolving the claim and, if applicable, make available any independent expert opinion.

6.4.9.1.3 Independent Expert

If a claim involves an issue or dispute where the assistance of an independent expert may be helpful, the parties may, by mutual agreement, engage a jointly selected independent expert with technical or other appropriate expertise to assist them. The independent expert will, if agreed upon by the parties, review and render an advisory opinion within sixty (60) days of his/her retention or a longer period if the parties mutually agree.

6.4.9.1.4 Submission of Certified Claim

If a claim cannot be resolved to the mutual satisfaction of both parties, regardless of whether or not [Sections 6.4.9.1.2 or 6.4.9.1.3] have been complied with, then the design-builder shall submit a Certified Claim as set forth in [Section 6.4.9.2].

6.4.9.2 Certified Claim and Procedures

The design-builder shall submit a written certified claim ("Certified Claim") to the Authority's Contracting Officer signed by a duly authorized officer of the design-builder. The Certified Claim at a minimum shall include: (a) the nature of the relief sought; (b) a narrative that fully explains the facts and circumstances underlying the Certified Claim, including the basis of the Authority's liability to the design-builder; and (c) specific reference or inclusion of all actual cost accounting records, actual schedule data, as-built data, and other documentation fully supporting any request for adjustment to the contract price or extension of time.

The Certified Claim shall contain a certification that: (a) the claim is made in good faith, and that the supporting data is current, accurate, and complete as of the date of certification; (b) the amount of additional compensation and/or time of performance requested accurately reflects a reasonable adjustment in the added cost and time of performance to which Contractor reasonably believes it is entitled; (c) and that there is supporting actual cost accounting records and actual schedule as-built data that reflect the Work performed as of the date of certification.

Within thirty (30) days of receipt of the Certified Claim, the Authority's Contracting Officer shall issue a written decision to the design-builder regarding the dispute. This decision will be considered final and conclusive unless, within thirty (30) days from the date of receipt of the Authority's Contracting Officer's final decision, the design-builder furnishes a written request to the Authority's Contracting Officer for mediation of the issue(s) in accordance with [Section 6.4.9.3].

6.4.9.3 Mediation

If the parties cannot resolve the dispute in accordance with [Sections 6.4.9.1 or 6.4.9.2], the parties agree to submit the dispute to mediation. The mediation process shall be initiated within thirty (30) days of the submission, and the parties shall endeavor to conduct and complete the mediation within sixty (60) days after the appointment of the mediator. The parties shall mutually agree on the selection of a neutral mediator, and shall share equally the costs of the mediator's fee and other administrative fees of the mediation. If the parties are unable to agree upon a mediator, a mediator shall be appointed pursuant to the Construction Industry Arbitration Rules and Mediation Procedures of the American Arbitration Association. The parties agree to produce documents as may be required by the mediator to facilitate the mediation.

In the event that the mediation fails, the mediator shall issue a certification of the failure of mediation to the parties. No later than ten (10) days after such certification, the Authority's Contracting Officer shall issue its written final decision to the design-builder regarding Certified Claim.

6.4.9.4 Legal Proceedings

As to such portion of the Certified Claim that is denied by the Authority, the design-builder may institute a civil action for such relief as it claims to be entitled to under the contract. The design-builder's compliance with [Sections 6.4.9.2 through 6.4.9.3 above] shall be a condition precedent to bringing a civil action.

The design-builder and the Authority waive their respective rights to a trial by jury on any claim or cause of action upon, arising under, arising out of or related to the contract or other proceeding or litigation of any type brought by any of the parties against any other party whether with respect to contract claims or actions, tort Claims, or otherwise. The design-builder and the Authority agree that

any such claim or cause of action shall be tried without a jury. Without limiting the foregoing, the parties further agree that their respective right to a trial by jury is waived by operation of this section as to any action, counterclaim or other proceeding which seeks, in whole or in part, to challenge the validity or enforceability of the contract.

The sole and exclusive jurisdiction and venue for any legal action between the parties arising out of or relating to the contract shall be filed in and decided by a court of competent jurisdiction in the State of California.

6.4.9.5 False Certifications

Any Certified Claim that is based on false statements or material misrepresentations shall entitle the Authority to a full recovery of all costs and fees incurred by the Authority in investigating, analyzing, negotiating, mediating and litigating such claim, including attorney's and consultant's fees. This remedy is a contractual remedy and does not otherwise affect the other rights of the Authority in law or in equity.

6.4.9.6 Continuance of Work During Dispute

At all times during the term hereof, including during the course of and notwithstanding the existence of any claim: (a) the design-builder shall perform as directed by the Authority, in a diligent manner and without delay, shall abide by the Authority's decisions or orders, and shall comply with all applicable provisions of the contract documents; and (b) the Authority shall perform its obligations under the contract in a diligent manner and without delay. Records of the work shall be kept in sufficient detail to enable payment in accordance with applicable provisions in the contract documents.

6.4.10 Safety Certification

A safety and security program will be implemented that addresses applicable FRA requirements and guidelines related to system safety and security during the design and construction of the LPA. The procedures for monitoring of Design-Build contractor's safety and security certification activities and monitoring of the Design-Build contractor's environmental, safety, and health activities will be followed by the Authority.

6.4.10.1 The Authority Safety and Security Management Plan

The Authority Safety and Security Management Plan (SSMP) will define the requirements and responsibilities for the implementation of safety and security requirements during the design and construction of the Project. This Plan will document the Authority's policy on safety and security and defines the roles and responsibilities of the Authority and the design-builder in implementing, monitoring, and complying with applicable safety and security requirements during the course of the Project. The SSMP references the ICS Safety/Security Certification Management Plan (SCMP). The SCMP describes in more detail the safety and security certification process that will be implemented by the design-builder during the Final Design and Construction of the Project.

6.4.10.2 Safety/Security Certification Management Plan (SCMP)

The SCMP will describe the safety and security certification process that the design-builder will implement during the Project. The design-builder will assign a Safety and Security Manager to the Project. A Project Safety/Security Certification Working Group (SCWG) will be established and representatives from the Authority and the design-builder assigned to the SCWG. The SCWG will direct and assist the design-builder Safety and Security Manager in developing the SCMP. The SCWG will continue to function during the course of Final Design and Construction of the Project and will act as a review board for activities, analyses, and reports on safety/security-related issues. In this role, and in the role of driving the safety/security certification process, the SCWG, led by the design-builder Safety and Security Manager, will have the responsibility of assuring that all safety/security-related reviews and analyses are performed and that all hazards and vulnerabilities identified during the course of the Project are documented and resolved.

When the activities specified by the SCMP to be conducted during Final Design and Construction have been completed, the design-builder will prepare a Final Safety/Security Certification Report that certifies that the Project, or phase of the Project, is in compliance with Project safety/security requirements. The Final Safety/Security Certification Report will be reviewed and approved by the Authority.

6.4.10.3 Owner Controlled Insurance Plan

The Authority intends to implement an Owner Controlled Insurance Program (OCIP) for the Project. Details of the OCIP are not known at this stage and the extent to which it may be possible to directly correlate an individual contractor's performance with a reduction in the cost of the OCIP has yet to be determined.

It is recognized that the cost of the OCIP will be affected by the collective safety performance of the various contractors during the course of the construction works, and contractors will be strongly encouraged to implement the highest practical standard of safety compliance and actively monitored for compliance to obtain and maintain favorable OCIP ratings.

This matter will be studied in detail once the details of the OCIP become known, and incentive payments to Contractors will be considered based on enhanced safety performance for the CHSR that results in tangible benefits to the Authority through reduced OCIP costs.

In addition to any potential financial incentives included in each Contract, public recognition of a Contractor's safety record in achieving target milestones for hours worked without Lost Time Accidents will be implemented by the Authority with the award of Certificates and appropriate announcements in the press.

6.4.11 Substantial Completion

Substantial Completion signifies the end of the design, supply and construction phase of the Work. Following successful completion and documentation of substantial completion of all requirements of the Contract Documents, the design-builder may formally submit their request for the Certificate of Substantial Completion.

Following Substantial Completion the Authority will take control of access to all portions of the Project. The design-builder shall not conduct any activities on the Project after Substantial Completion without prior notification and concurrence of the Authority.

6.4.12 Final Acceptance

Final Acceptance indicates satisfaction of all Contract requirements and the release of the design-builder from further responsibility under the Contract except for the guarantee/warranty provisions. Promptly after Substantial Completion, the design-builder shall perform Punch List items and other Work, if needed. The Punch List items and other Work activities shall fully satisfy the design builder's other obligations under the Contract Documents necessary to achieve Final Acceptance.

The design-builder shall provide technical support to the Authority for the identification and remediation of Project defects found during this period. Upon design builders' satisfactory completion of all of the terms and conditions of the Contract Documents, Final Acceptance will be issued to the design-builder.

6.5 Third Party Agreements

The Authority will work to formalize third-party (railroads, utilities, local agencies, oversight agencies) commitments through written agreements prior to project award. The authority will also clarify third-party requirements and obligations in the design-build contract accompanying the RFP. The following sections describe third-party agreements that have been, or will be executed, to facilitate the coordinated execution of the Project.

6.5.1 Intergovernmental Agreement (including Federal, State and Local Agencies, Tribal Entities, and Special Districts)

The Authority has executed funding agreements with the COE, the EPA, and Caltrans. The Authority anticipates executing funding agreements with the FWS, the NMFS, the SHPO, CDFG, CDPR, and SWRCB by July 1, 2011.

The Authority, FRA, COE and EPA have executed a Memorandum of Understanding outlining the National Environmental Policy Act, clean Water Act Section 404, and Rivers and Harbors Act Section 14 integration process for the project.

The Authority, FRA, SHPO, and Advisory Council on Historic Preservation are currently executing a Programmatic Agreement outlining the process for adhering to the National Historic Preservation Act, Section 106.

6.5.2 Utility Agreements

[INSERT INFORMATION ON UTILITY AGREEMENTS CAHSRA WILL EXECUTE]

6.5.3 Railroad Agreements

[INSERT INFORMATION ON RAILROAD AGREEMENTS CAHSRA WILL EXECUTE]

6.6 ROW Acquisition

This section addresses acquisition of property rights necessary for the construction, operation, and maintenance of the Project, and is summarized in the following sections.

6.6.1 Overview

Approach – Upon environmental approval of the project, the Authority will implement a comprehensive ROW program to cover all aspects involved in the public acquisition process.

ROW Program – The Authority will review anticipated segments of construction and acquire necessary parcels according to the segments that will occur first in the construction cycles of the respective contracts.

Pre-Acquisition – The Authority will immediately identify whole takings and difficult acquisitions where ROW activities may be accomplished before design is final and concentrate its activities on these properties to allow ample time to address long-lead items.

Appraisal – Once appraisal maps are complete, the Authority will procure the needed appraisals for the project. All appraisals will be reviewed and protocols will be established for dual appraisal reports.

Acquisition – Experienced and qualified negotiators will present the Authority's written offers to property owners in person and systematically address any barriers to settlement.

Closing and Settlements – The Authority will open escrows and work to deliver title to the condition stated in the purchase documents.

Relocation Assistance – The Authority will assign senior-level relocation advisors to each business subject to relocation to personally manage this relocation.

Property Management/Site Control – As the Authority acquires properties and businesses, and as residential owners move out, the authority will manage the vacated buildings.

6.6.2 Right-of-Way Acquisition Management

The Authority is managing the acquisition of right of way necessary to construct and operate the Project. However, specific acquisition activities necessary for conveyances of property interests may be conducted by the design-builder with review and approval by the Authority and other agencies as appropriate. The Authority, on behalf of the Project, will maintain executive oversight of the design-builder for all decisions that are made regarding right of way for the Project.

6.6.3 Right-of-Way Acquisition Management Plan

A Right-of-Way Acquisition Management Plan (RAMP) will be prepared in parallel with the completion of preliminary engineering. The organizational structure, coordination requirements, procedures to be employed, and specific acquisition strategies will be described in the Plan. An

inventory of property requirements resulting from the Preliminary Engineering drawings will be developed. The approach of the ROW Acquisition Plan will be specifically structured to support a Design-Build construction effort.

6.6.4 Property Acquisition and Relocation Assistance

Property interests to be acquired will be identified in the ROW Acquisition Plan based on Preliminary Engineering completed in preparation for a Design-Build approach.

As a federally-assisted Project, property acquisition and displacement activities must comply with regulations set forth in Title 49 CFR, Part 24 which implements the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended. Property acquisition activities will begin once a Record of Decision is approved, finalizing the Project alignment.

6.6.5 Property Management Plan

Maintenance and protection of property interests acquired in the name of the State of California will be provided by the Property Acquisition Agent until control of the property is transferred to the Design-Build contractor. The Project does not anticipate holding property interests for any significant time before construction is authorized.

The Property Acquisition Agent will be required to maintain an inventory of all real property and improvements acquired for the Project. The inventory will be updated when physical possession of the property occurs.

The responsibility of the Property Acquisition Agent will include protecting the property from vandalism, encroachment or other misuse, as well as taking measures to insure public safety. Maintenance and protection of the property will be a Project expense.

Property management following completion of the Project will be provided by the Authority.

6.6.6 Scheduling and Cost Estimates

The ROW Acquisition Plan will contain a Property Acquisition Schedule and a Right of Way Cost Estimate. A cost estimate for the property interests to be acquired will be generated based on completed Preliminary Engineering.

The estimate will be developed considering costs for land values, improvements and damages for each property from which interests are to be acquired. The estimate for land values will include costs for temporary and permanent easements as well as for fee acquisitions. Relocation expenses will be included for those acquisitions involving displacements and/or personal property moves. The estimate will include a contingency for condemnation increments and settlements.

The cost estimate will consider impacts in the form of damages to property remainders. For land values the estimate will be based on the area of fee acquisitions and the areas for permanent, temporary and utility easements. Assumptions will be made for business displacements and relocation payments based on a Pre-Acquisition Relocation Assistance Planning Report.

6.6.7 Permits

The Authority will work to obtain the necessary environmental permits within 90 days after each NOD/ROD. The Authority's efforts will include:

- Pre-application coordination with agencies regarding mitigation alternatives.
- Developing specific mitigation plans and acquiring any necessary off-site mitigation rights.
- Ensuring that design plans and project impacts are accurately portrayed in permit applications.
- Follow-up coordination with agencies to address concerns and expedite issuance of authorizations.

For those permits not fully attained by the Authority prior to the award of the design build contract, the contractor will be obligated to take an active role in obtaining any outstanding permits. The Authority shall take the lead in negotiations, however, the contractor shall provide all reasonable assistance, including design information, drawings, descriptions of mitigation plans, etc.